

**FY88
ANNUAL
GROWTH
POLICY**

MONTGOMERY COUNTY, MARYLAND



FINAL DRAFT

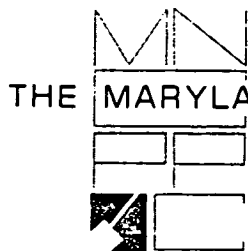
prepared by

Montgomery County Planning Board

The Maryland-National Capital Park and Planning Commission

December 1, 1986

PREFACE



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

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December 1, 1986

The Honorable Sidney Kramer
County Executive
Executive Office Building
Rockville, MD 20850

The Montgomery County Council
Stella B. Werner Council Office Bldg.
Rockville, MD 20850

Dear Mr. Kramer and Council Members:

The local law establishing the process by which the County Council will provide policy guidance for the management of growth in Montgomery County specifies that the Planning Board will submit a draft of the Annual Growth Policy to the County Executive for revision before it is submitted by the Executive to the County Council. As we transmit the proposed Growth Policy document, the Planning Board is conscious of the need to explain some aspects of the document and comment on some of the policy alternatives. Such a commentary is not intended, however, to be included in what the Council adopts at the end of the process. We have chosen, therefore, to use this extensive transmittal letter as a preface to the document to assist the Executive and the Council to evaluate the recommended Annual Growth Policy.

We begin this commentary with an expression of deep appreciation for the various staff groups involved in this process. Since the enactment of the Growth Policy law and amendments to the Adequate Public Facilities Ordinance, the Planning Department staff have been heavily engaged in a number of related activities to which the Executive staff and the MCPS staff have also contributed. With the enactment of more stringent APFO requirements last April, it was necessary to recalculate the thresholds based on the 1986-91 CIP. Following approval of the 1987-92 CIP, the thresholds were recalculated again and approved after public hearing. During that same period an Interim Growth Policy was prepared and submitted to the Executive and Council to prescribe short term traffic alleviation measures. These activities involved the same staff who were deeply involved in the preparation of this Annual Growth Policy document, calculating growth ceilings for alternative transportation programs and developing proposed new school analysis techniques for APFO administration. During the past seven months, they have put in many hours in excess of the normal workweeks. We are grateful for their efforts and contributions.

During the Planning Board review of the Staff Draft of the AGP document, we have had the benefit of a public hearing, suggestions from the Executive staff, a number of written commentaries, a meeting with the Board of Education, and further staff analysis. We have reorganized the contents of the document to include in the Appendix material which may be too detailed for Council review and approval. We believe the Appendix will be useful as a reference source for many who will use this document.

GROWTH MANAGEMENT ISSUES

In this initial effort on an Annual Growth Policy, the Planning Staff and Planning Board have given first priority to the ongoing attempt to match the timing of private development to the availability of public facilities. This effort has two components:

- (1) The provision of public facilities to support the private development encouraged by our master plans and the market place;
- (2) Constraining the amount of private development to that which can be accommodated by the public facilities we are fiscally and physically able to produce in a given time frame.

This is what the Adequate Public Facilities Ordinance is all about. It mandates that the Planning Board not approve a subdivision plan unless it finds that the public facilities in place or programmed in the local and state capital programs will be adequate to serve the subdivision along with all other approved development. This is not a simple task because it requires an attempt to measure the future impact of new and existing development on the future capacity of new and existing facilities.

Our administration of the APFO has been progressively tightened over the thirteen years since it was enacted. In the early years, subdivision approvals were constrained by the sewer moratorium, but the Planning staff and the Board soon realized that we did not have adequate techniques for relating future growth to future transportation capacity. The future impact of the proposed subdivision, taken with other unbuilt subdivisions in the neighborhood, could be fairly readily measured against the nearest critical intersection, but this did not take into account the effect of upstream development on that intersection or the effect of the proposed subdivision on downstream intersections. To respond to this problem, staff developed new techniques that have been widely recognized as being at the cutting edge of transportation-related growth management.

The new techniques were proposed in 1979 and implemented in January 1982. They involve a "traffic-shed" analysis which takes into account the availability of transit and measures the effects of new development and new roads within the traffic-shed (policy area) and in adjacent policy areas. The new approach did not, however, abandon the examination of the nearest intersections. This test was expanded to include nearby links as well as intersections, and it became a second test (Local Area Review) to be applied if the first test showed the availability of threshold capacity in the policy area.

These and other steps to tighten the enforcement of the APFO have been made more meaningful by significant changes in the Transportation CIP. In earlier years, the CIP was not much more than a wish list, although the APFO required the Planning Board to approve subdivisions if the necessary roads were in the CIP. Gradually this situation has changed, and the capital programs approved in 1985 and 1986 reflected meaningful schedules to which the

Executive branch is firmly committed. This is crucial because the APFO is only as meaningful as the CIP on which it is based.

The transportation APF guidelines contained in the Annual Growth Policy are the same as those enacted by the County Council last year:

1. For staging ceilings and local area review, future traffic estimates are based on existing development plus the future development from all subdivisions for which preliminary plans have been approved.
2. For staging ceilings, traffic capacity is derived from existing roads and roads in the CIP or CTP for which all construction expenditures are scheduled in the first four years of the program.
3. For local area review, traffic capacity is derived from existing roads and roads in the Approved Road Program, which are roads for which all construction funds are appropriated and which will begin construction within two years.

There are two conservative elements in these guidelines: (1) Some subdivisions may never be built and some may be reduced in scale slightly when they undergo site plan review; (2) Not all of the pipeline of approved subdivisions is likely to be developed during the four-year CIP time frame.

Under the current CIP, the pipeline exceeds the ceiling in a number of policy areas. For FY 1988, we have calculated alternative ceilings based on two scenarios of CIP projects. The high scenario does not completely solve all the moratorium problems. For the further consideration of the Executive and Council, we are providing a staff report on transportation matters which suggests other measures that might help solve these problems.

The other important aspect of APFO administration is the relationship of new development to public school capacity. Only in recent years has MCPS been providing recommendations to the Planning Board concerning the adequacy of school facilities to serve a new subdivision. Experience during the past two years has confirmed that this is a much more complex analytical problem than the transportation facility analysis. Two aspects of the problem will illustrate this:

1. The supply/demand relationships in the school facilities is much more dynamic than in transportation. We know that the traffic generated by 100 homes will continue indefinitely with only small fluctuations once the homes are occupied. For schools, both sides of the relationship will change each year because the age mixture of the existing school population will change as will the age mixture from the new subdivision. A road which cannot handle a new subdivision in 1987 will not be able to handle it in later years. A school which cannot handle a new subdivision in 1987 may very well be able to handle it in 1988, 1989, or 1990.

2. We are not troubled if a road is utilized to only 70% of its full capacity because the users perceive it as a better level of service. As a school drops below 70% of its capacity, the cost per pupil rises and the educational quality may begin to deteriorate. For roads we can approve subdivisions that will ultimately fill a road. For schools we need to know when and at what speed the subdivisions will be built because we don't want to build the schools too early and we don't want to constrain development unnecessarily.

These characteristics of the two systems tell us that the pipeline of approved subdivisions determines the minimum additional road system we need, and we shouldn't approve additional subdivisions unless we have programmed roads in excess of the amount needed for the pipeline, but we cannot use a pipeline analysis for schools. We must use the forecast of the build-out schedule for approved subdivisions plus the forecast of changes in pupil composition from existing homes.

Turn this around and examine its implications for a growth control system in which the use of private property is being constrained to conform to the availability of public facilities. It is relatively easy to sustain a finding that transportation facilities are inadequate to support a new subdivision when the traffic generated from all previously approved subdivisions will fill all the programmed roads. It is not so certain that a subdivision denial based on school facilities can be sustained when the demand on the school facilities is a function of when the unbuilt subdivisions will be built and how this meshes with changes in the age of children in existing homes.

The Planning Board has been quite uncomfortable trying to address school APF issues on a subdivision by subdivision basis. Because of anticipated lawsuits, I will not discuss the details of our discomfort. Suffice it to say at this time that we asked our staff to develop a method analagous to the policy area review system used as the first test for transportation facilities. The method incorporated in the Annual Growth Policy has been developed with the assistance of MCPS staff and Executive staff. Although they have not acted formally at this time, we believe it will receive the concurrence of the Board of Education. Several aspects should be explained:

1. The definition of school capacity is a critical element in such a growth management system. While we believe that great deference should be given to the Board of Education's definition of school capacity, it is important that the definition we use for growth management purposes be explicitly endorsed by the County Council.
2. Since school facility analysis is forecast-driven rather than pipeline-driven, the proposed policy area review uses the forecast for the fourth year of the CIP for pupils at each school level and compares them to the aggregate capacity in the high school cluster in the fourth year. If the pupil forecast equals or exceeds the capacity, then no subdivisions may be approved in that cluster area that year.

3. The Planning Staff originally recommended that the pupil forecast be measured against 110% of the aggregate capacity as defined by the Board of Education. The theory behind this is that there is some flexibility in the MCPS ability to accommodate pupils, either in adjacent clusters or through the use of portables. Members of the Board of Education commented that frequent boundary changes are unacceptable to parents and portables should be a temporary expedient, not permanent. The Planning Board decided to include in the Annual Growth Policy the tabulations showing the effect of using 100% as well as 110% of the defined capacity, providing an opportunity for the Executive and other interested parties to comment on the alternatives.

GROWTH POLICY ISSUES

This first edition of the Annual Growth Policy is, of necessity, primarily an update of the Comprehensive Planning Policies document previously issued periodically by the Planning Board. We agree with those who testified at our public hearing that the Annual Growth Policy will be a useful medium for Council consideration of growth policy alternatives. While we have not had the time to develop a comprehensive analysis and evaluation of existing growth policy, this document is not devoid of policy alternatives nor of opportunities for the Executive and Council to enunciate new policy directions or interpretations.

It is important to remember that the Council has, over the past 15 years, approved most of the elements of a comprehensive growth policy, albeit never in a single document with such a label. The growth policies of the County can be found in the General Plan, the master plans and sector plans which give specific content to the General Plan, the Housing Policy, the Moderately Priced Dwelling Unit Ordinance, the economic development program, the Agriculture and Open Space Preservation Program, the Adequate Public Facilities Ordinance and many other similar documents. Given the fact that these various elements of growth policy were not all articulated at one time and in one document, one might be surprised at their consistency until one remembers that they were all approved by the County Council and that the basic planning philosophy of the Council has not changed for 20 years.

Most of the long-range growth policy for the County is reflected in the General Plan, the comprehensive master plans, and the functional master plans. These plans have provided for higher intensity development near Metrorail stations, concentrated development in the urban ring and the corridors, protected and preserved the wedges and stream valleys, provided for a variety of housing types and densities, and provided many opportunities for people to live and work within reasonable commuting distance. A large number of the master plans and sector plans approved in the past twelve years have had some form of staging element to direct and control growth. The 1974 Germantown Master Plan used the extension of sewer and water service as a method of staging the development of Germantown. The 1976 Bethesda Sector Plan provided a staging element for use of the optional method for large-scale development and this has recently been amended to

limit standard development until traffic capacity is available. Each plan has staging elements which are most appropriate to that area.

The Planning Board agrees that the Annual Growth Policy can be a medium for a comprehensive compilation of the County's growth policies. Such a compilation would provide a better understanding of the present policies, permit an assessment of the desirability of introducing more of a priority system, and encourage an evaluation of the overall effect of present policies. Such a complete compilation would require considerable staff and Board effort, and it is not fully possible within our current work program. Some important aspects, however, are in our work program; specifically, an assessment of the General Plan, with particular reference to the end state capacity of transportation and environmental systems as they relate to master planned development levels, a study of employment-related land use demand, and a fiscal impact assessment of land use alternatives. It is doubtful that all these will be completed in time for Council consideration before acting on the Annual Growth Policy, but some reference to interim results and studies to be included in the second Annual Growth Policy would be possible.

A joint briefing of the Council by the Executive and Planning Board early in January might be the basis for identifying any additional questions or studies the Council or Executive would wish to see prepared prior to the June adoption of the FY 88 AGP.

POLICY ALTERNATIVES

The discussion of growth policy in the document focuses on the tension between the purse power and the police power -- the ability to provide public facilities and the ability to constrain growth to maintain a reasonable balance between private development and public facilities. It is appropriate and necessary that this Annual Growth Policy be an instrument of Council action because both the purse power and police power ultimately reside in the Council. With considerable input and participation by the County Executive, the County Council is the ultimate fiscal authority which approves the capital program and operating budget and levies the necessary taxes, and the County Council has the ultimate authority over land use regulation.

A number of growth policy alternatives are presented for Council consideration in this first Annual Growth Policy document:

1. Alternative transportation ceilings. The transportation staging ceilings are a quantification in terms of jobs and dwelling units of the amount of additional development that could be handled by a given level of programmed roads. The document contains two sets of staging ceilings. The lower one represents the natural progression into the fourth year of the 1988-93 CIP of projects which were to be completed in the fifth year of the 1987-92 CIP. The higher ceiling shows the amount of development approval that could be permitted if the sixth year of the current CIP were also moved into the fourth year next year. The basic decision concerning these alter-

natives will be made as the Council acts on the CIP. The blue staff report on transportation matters offers some other alternatives that might be considered.

2. The Planning Staff have made some estimates of the amount of transportation capacity that is likely to be freed up as a result of the short term traffic alleviation measures approved by the Council some months ago. The Planning Board has not recommended that these be included in the staging ceiling calculation. We believe it would be better to monitor these actions this year and include the capacity next year on the basis of actual experience. The Executive might recommend otherwise.

3. For each policy area, the staging ceiling is divided between jobs and dwelling units. The judgment about the division of the ceiling begins with a review of the land use recommendations of the relevant master plans and an analysis of market trends. These market judgments are reflected in the split between the two types of development. It is quite possible and proper for the Council to examine these elements and make a legislative judgment to alter their relationship.

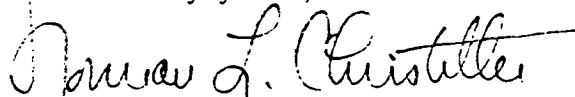
4. The policy area staging ceilings are derived from a traffic model in which a principal parameter is the Level of Service (LOS) standard established by the Planning Board when it adopted the policy area review in 1982. These LOS standards are derived from a judgment about the amount of transit service that will be available in the policy area, a lower LOS being accepted where a higher level of transit service is planned. As time goes by it would be appropriate to change the LOS standard if increased transit service is being programmed. This is a policy alternative the Council will want to consider in connection with its decisions on the transit budget.

5. We have previously mentioned the policy alternative concerning the percentage of school capacity that would be used to determine whether the facilities in a high school cluster are inadequate.

6. Other policy issues and alternatives undoubtedly will emerge after the Executive has submitted a revised AGP and the 1988-93 CIP and the Council has held a public hearing.

We look forward to working with the Council and the Executive on these important matters during the coming months. Our staff will be available to assist in providing ceiling calculations based on alternatives the Executive may wish to consider in completing work on the CIP. We will also provide any additional analysis the Council may need for its work on the CIP.

Sincerely yours,



Norman L. Christeller

Chairman

Montgomery County Planning Board

**INTRODUCTION
and
EXECUTIVE
SUMMARY**

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INTRODUCTION

Growth Policy Legislation and Intent

Council Bill No. 11-86, which establishes an Annual Growth Policy, states that "the purpose of this law is to establish a process by which the County Council can give policy guidance to the various agencies of government and to the general public on matters concerning: land use development; growth management; and related environmental, economic and social issues. The process will be established through the adoption by the County Council of an Annual Growth Policy, which is intended to be an instrument that facilitates and coordinates the use of the various powers of government to limit or encourage growth and development in a manner that best enhances the general health, welfare and safety of the residents of the County" (see Appendix).

The FY 88 Annual Growth Policy seeks to establish the vision that a comprehensive and balanced growth management process can be achieved, through coordination and cooperation among all relevant agencies and individuals of both the County and the State, while still respecting the separate prerogatives of individual agencies and persons within established statutory and legal provisions. The realization of this vision requires the development of improved skills of analysis, communication, scheduling, debate, coordination, and decision-making. Perfection will not be achieved in this first year. It will take time. But a start has now been made, and succeeding years can build on it.

Executive Summary

Comprehensive growth policy is a potentially complex subject. This report breaks it down into six chapters. The first is this Introduction and Executive Summary.

The second chapter outlines the framework for growth policy by establishing the concept of a growth policy hub which sits at the center of a larger quality of life wheel. The growth policy hub is an inner ring of eight key policy elements which must be kept in balance in order to successfully manage growth and maintain a desirable quality of life. These eight policy elements form the hub of the larger quality of life wheel, whose spokes reach out in eight directions into all the detailed aspects of life in Montgomery County. The policy elements of the growth policy hub are called: (1) economic, (2) housing, (3) social, (4) transportation, (5) natural resources, (6) community facilities, (7) fiscal, and (8) land use. A very brief overview description of recent and current policy for each of these elements is provided, together with a short reference section, showing where further information may be obtained about the details that lie further out along each of these spokes of the quality of life wheel.

The third chapter provides an opportunity to isolate particular problems and issues that deserve attention during the next fiscal year, and establish specific focal points to deal with them.*

The fourth chapter presents general guidelines for the administration of the Adequate Public Facilities section of the Subdivision Ordinance (APFO) by the Montgomery County Planning Board. Specifically, it establishes capacity standards for the eight public facilities covered by the APFO, based on the adopted Capital Improvements Program (CIP), and establishes maximum limits called ceilings, for the approval of subdivisions during the next fiscal year in different sub-areas of the County, called policy areas. It establishes one set of policy areas and ceilings based on programmed transportation facilities; and another set of policy areas and ceilings based on school facilities; and it establishes other standards and criteria for measuring water, sewer, police, fire and health facility capacity. Finally, it establishes certain other criteria and procedural guidelines, and delegates the adoption of further, more detailed administrative regulations and definitions to the Planning Board.

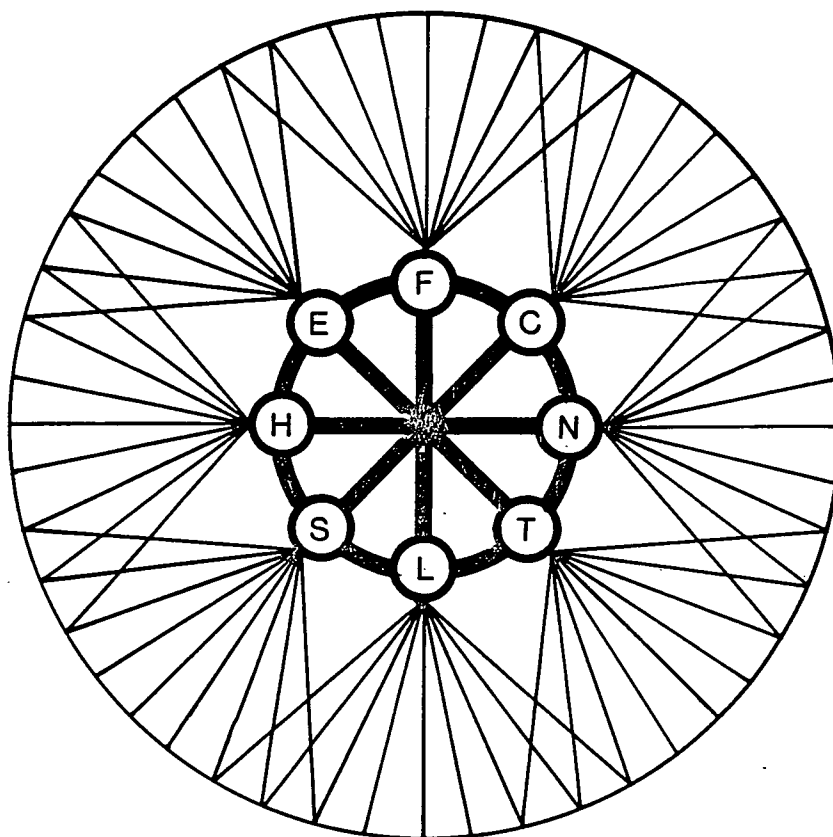
The fifth chapter summarizes the relevant transportation and school portions of the adopted CIP, on which are based the policy area ceilings used to limit subdivision approvals under the APFO.

Finally, the sixth chapter is an Appendix which is not technically a part of the Annual Growth Policy adopted by the County Council, but contains a wide variety of reference material which is relevant to the issues covered by the adopted AGP.

For the benefit of the casual reader, the following material has been brought forward to provide a quick overview of some of the key pieces of information presented in the individual chapters:

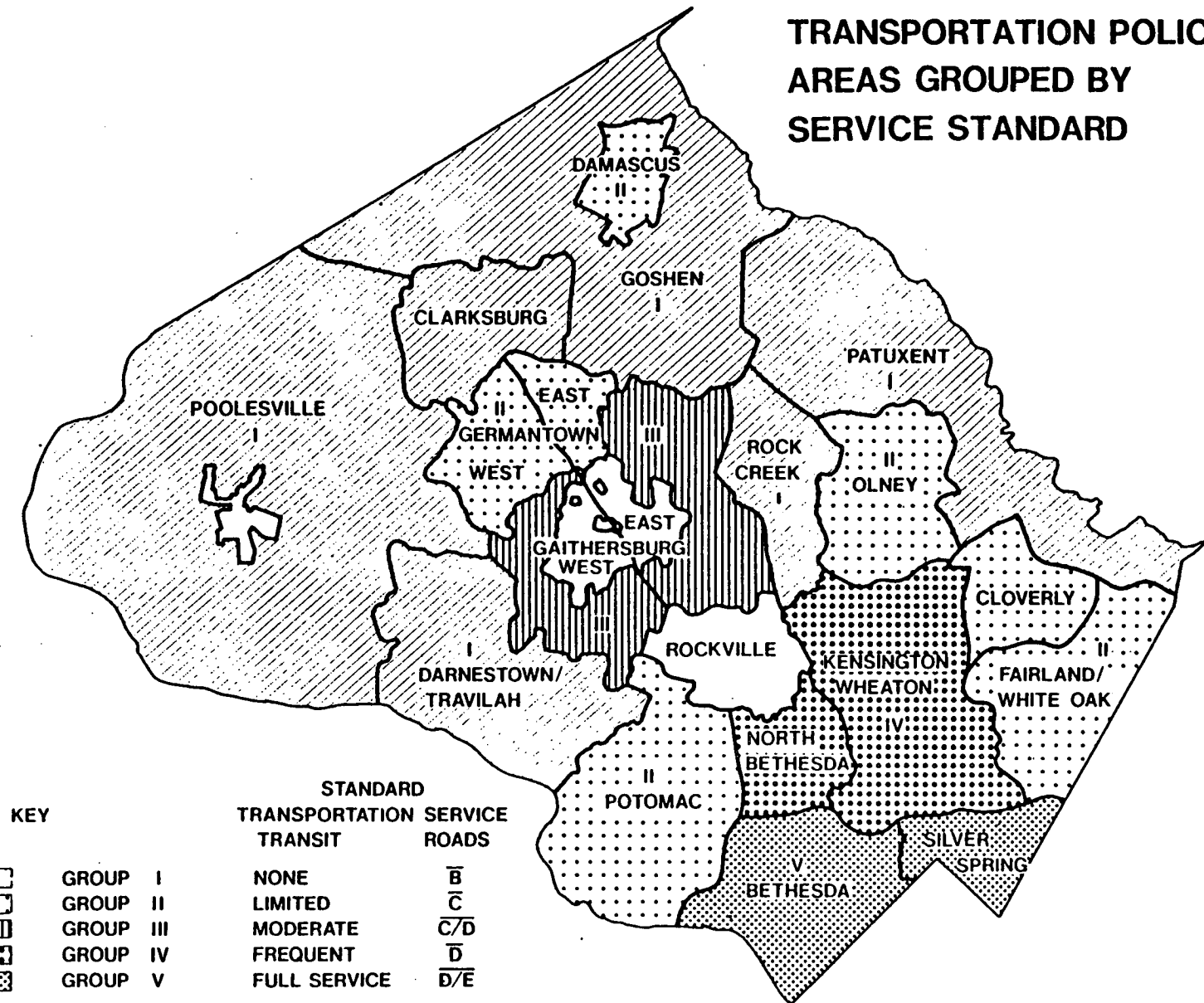
- (1) a diagram of the GP hub of the QL wheel
(ch. 2)
- (2) a map and table of transportation policy area ceilings
(ch. 4)
- (3) a map and table of school policy area ceilings
(ch. 4)
- (4) a map of the adopted transportation CIP
(ch. 5)
- (5) some highlights from the Trends & Forecast section
(ch. 6)
- (6) a sample policy area chart showing forecasts and ceilings (ch. 6)

*NOTE: Time has not permitted the Planning Board and staff to complete a draft of this chapter. This summary of the chapter should be augmented to include whatever may be added to it subsequently.



QUALITY OF LIFE WHEEL

TRANSPORTATION POLICY AREAS GROUPED BY SERVICE STANDARD



SOURCE : M-NCPPC

HIGH SCENARIO

	A		B		C		D		E		F	
	Pipeline of Approved Subdivisions (as of 10/1/86) (#1)		Ceiling Adopted For Use In FY 87 (Based On FY 87-92 Adopted CIP) ²		Capacity Remaining Under FY 87 Adopted Ceiling (as of 10/1/86) (#3, 4) (B-A)		Ceiling For Use in FY 88 Under High Scenario for FY 88-93 CIP (#5)		Capacity Remaining Under FY 88 High Scenario Ceiling (as of 10/1/86) (D-A)		Potential Additional Capacity From Short-Term Traffic Alleviation Measures (#6)	
POLICY AREAS	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU
Potomac (#7)	1,897	2,864	3,371	3,925	1,474	1,061	3,371	3,925	1,474	1,061	0	0
Darnestown/Travilah (#7)												
Poolesville (#7)												
Goshen (#7)												
Damascus	161	1,055	(1,385)	(565)	(1,546)	(1,620)	(1,385)	(565)	(1,546)	(1,620)	0	0
Clarksburg (#7)												
Germantown East	5,554	1,514	3,744	(713)	(1,810)	(2,227)	5,744	1,287	190	(227)	25	75
Germantown West	6,090	8,089	906	(1,647)	(5,184)	(9,736)	7,906	4,353	1,816	(3,736)	25	100
Gaithersburg East	18,857	8,339	14,988	10,739	(3,869)	2,400	18,488	11,739	(369)	3,400	75	50
Gaithersburg West (#8)	16,427	6,164	18,465	6,188	2,038	24	22,965	8,188	6,538	2,024	25	25
Rockville (#7)												
North Bethesda	15,818	2,437	14,499	2,940	(1,319)	503	20,499	4,440	4,681	2,003	275	75
Bethesda (#9)	18,991	894	19,906	4,083	915	3,189	19,906	4,083	915	3,189	500	125
Silver Spring/Takoma Park	14,443	301	17,037	2,127	2,594	1,826	17,037	2,127	2,594	1,826	450	50
Kensington/Wheaton	6,037	5,289	12,208	6,194	6,171	365	12,208	6,694	6,171	865	0	50
Rock Creek (#7)												
Olney	1,240	3,177	1,687	3,900	447	723	2,187	4,400	947	1,223	0	0
Patuxent (#7)												
Cloverly	188	1,514	693	(290)	505	(1,804)	693	(290)	505	(1,804)	0	0
Fairland/White Oak	11,373	8,181	6,428	5,603	(4,945)	(2,578)	8,428	7,103	(2,945)	(1,078)	100	300
TOTAL CAPACITY FOR NEW SUBDIVISIONS	117,076	50,358	113,932	45,699	14,144	10,091	139,432	58,339	25,831	15,591	1,475	850

- Pipeline of approved subdivisions as of October 1, 1986.
- These numbers indicate the amount by which the adopted FY 87 Staging Ceiling exceeds the level of existing development as of January 1, 1986. Negative numbers indicate the amount by which existing development as of January 1, 1986, exceeds the adopted FY 87 ceiling. These are treated as zero ceilings for the purpose of calculating total capacity.
- Capacity remaining after pipeline is subtracted from adopted FY 87 Staging Ceiling. These numbers may change every week as new subdivisions are approved by the Planning Board and are added to the pipeline.
- Negative numbers indicate the amount by which existing plus approved development (i.e., pipeline) exceeds the cumulative capacity of the ceiling identified in the heading of the column. Negative numbers are treated as zero ceilings for the purpose of calculating total capacity for new subdivisions.
- Available capacity with the advancement of the fifth and six year of the FY 87-92 CIP to the fourth year of FY 88-93 CIP. Also advances the fifth year of MDDOT FY 86-91 CIP and additional projects that could be added to the fourth year of their FY 87-92 CIP as a result of potential revenue increases in Spring 1987.
- Available capacity with addition of short-term alleviation measures, for the set of measures adopted by the Council on September 30, 1986, for implementation in FY 87 and FY 88. These numbers reflect only those measures which have had specific budget appropriations and similar actions being done through developer participation agreements required at the time of approval of several preliminary plans. Those numbers reflect 50% of the estimated reduction obtained from these measures.
- Staging ceilings are not used for these Policy Areas.
- Preliminary plans within the Shady Grove West area will be subject to the conditions placed upon them in the Gaithersburg Master Plan.
- The Bethesda CBD Sector Plan supersedes the threshold established for the Bethesda Policy Area.

MONTGOMERY COUNTY SCHOOL POLICY AREAS:

Map 2

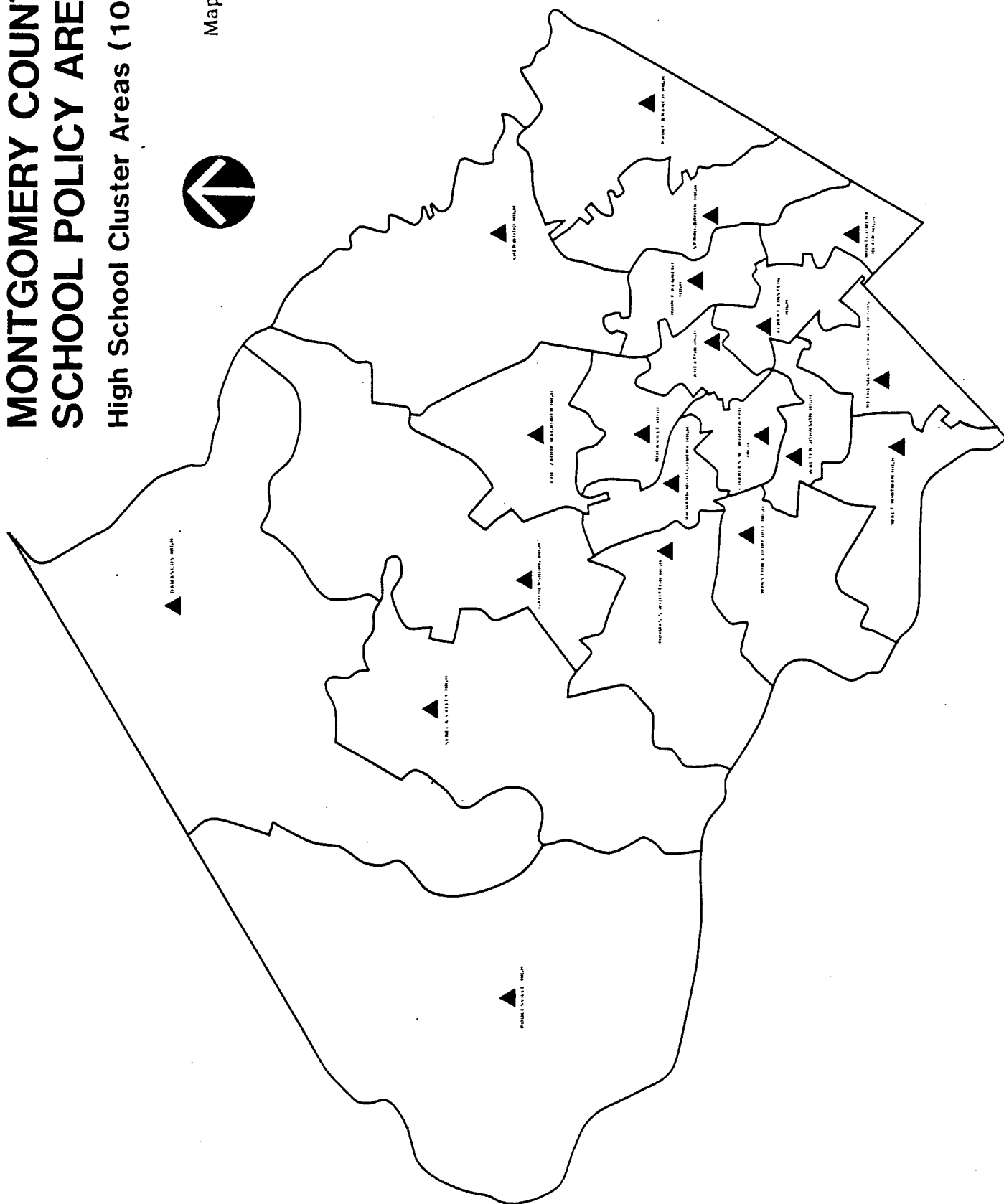


Table 2-B
ELEMENTARY SCHOOLS HIGH SCENARIO (110%)

Comparison of 1991 MCPS Elementary School Enrollment Projections
With Adopted and MCPS Requested FY 91 CIP Capacity at 110%¹
(In Students)

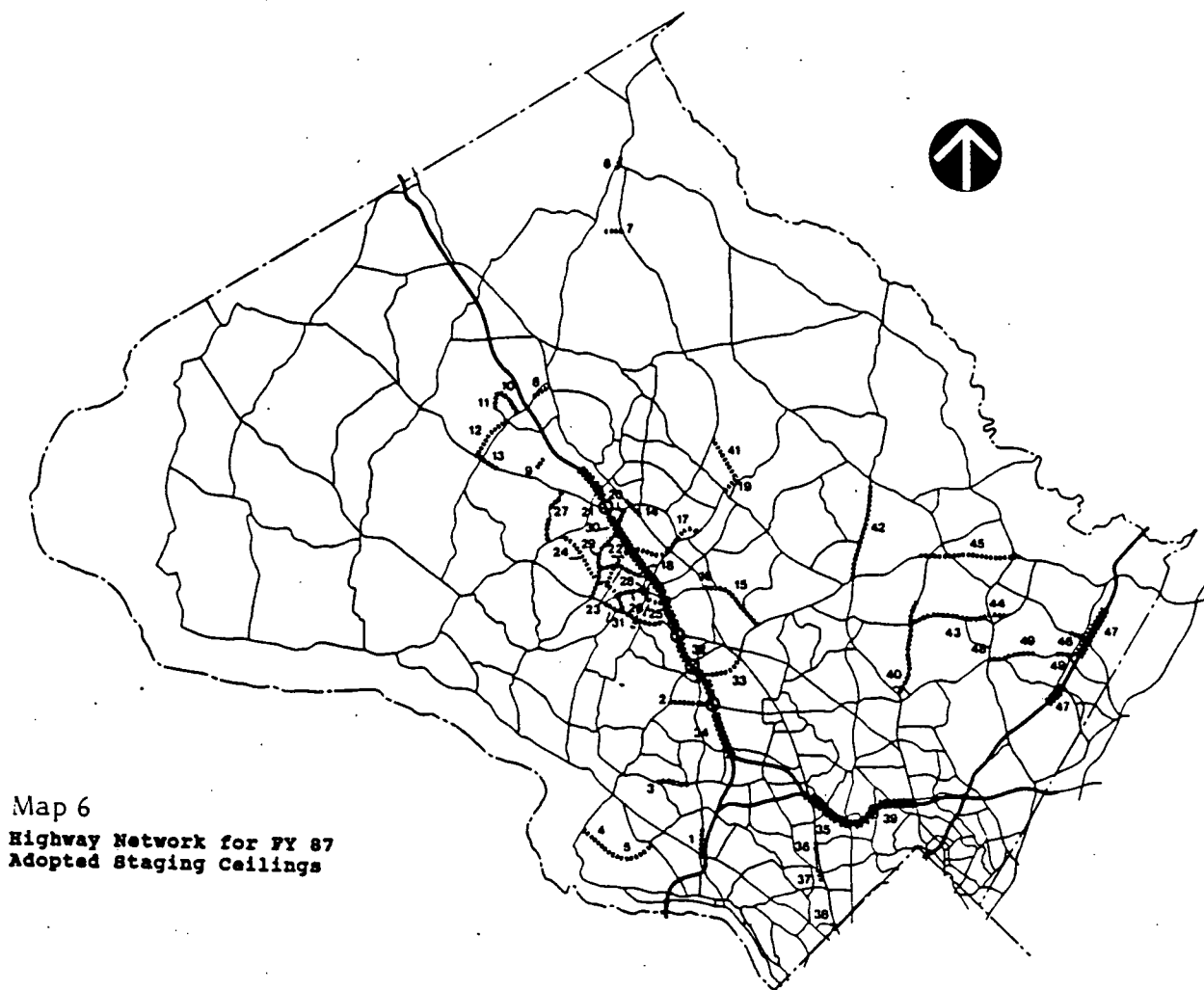
	A	B	C	D	E
	September 1991 Enrollment Projected by MCPS (as of 10/86)	Status Quo Ceiling For Use In FY 88 If No Changes Made In Adopted FY 87-91 CIP	1991 Capacity Remaining Under Status Quo Ceiling (B - A)	Ceiling For Use In FY 88 Under High Scenario For FY 88-91 (i.e., 110% MCPS Capacity)	1991 Capacity Remaining Under FY 88 High Scenario Ceiling (D - A)
School Policy Areas (High School Clusters)					
Montgomery Blair	4,788	5,337	549	5,640	852
Albert Einstein	2,858	2,871	13	2,871	13
John F. Kennedy ²	2,804	2,672	(132)	2,672	(132)
Paint Branch ²	3,101	2,280	(821)	3,284	183
Sherwood ²	2,397	2,144	(253)	2,144	(253)
Springbrook ²	3,480	3,175	(305)	3,739	259
Wheaton	<u>2,503</u>	<u>2,871</u>	<u>368</u>	<u>2,871</u>	<u>368</u>
Subtotal	21,931	21,350	(581)	23,221	1,290
Bethesda/Chevy Chase	2,469	2,977	508	3,167	698
Winston Churchill	2,471	2,785	314	2,785	314
Walter Johnson/Woodward ³	3,032	3,038	6	3,286	254
Richard Montgomery	1,929	1,946	17	1,946	17
Rockville ²	2,370	3,073	703	3,073	703
Walt Whitman	<u>2,119</u>	<u>2,258</u>	<u>139</u>	<u>2,258</u>	<u>139</u>
Subtotal	14,390	16,077	1,687	16,515	2,125
Damascus	2,819	2,906	87	2,906	87
Gaithersburg ²	8,108	8,100	(8)	9,759	1,651
Col. Zadok Magruder ²	2,110	1,792	(318)	1,792	(318)
Poolesville	946	944	(2)	944	(2)
Seneca Valley ²	7,483	8,168	685	8,192	709
Thomas S. Wootton ²	<u>3,494</u>	<u>3,370</u>	<u>(124)</u>	<u>3,370</u>	<u>(124)</u>
Subtotal	24,960	25,280	320	26,963	2,003
	=====	=====	=====	=====	=====
Total County	61,281	62,707	1,426	66,699	5,418

¹ 110% capacity is defined as 110% of the student capacity in the FY 91 CIP recommended by MCPS as of November 21, 1986 and the student per classroom policy adopted by the Montgomery County School Board on September 10, 1986, (i.e., 25 students per classroom etc.) The assignment of new school capacity to high school clusters is summarized in the Appendix.

² Boundaries may be affected as part of the Quince Orchard High School boundary planning process. Final boundary decision expected November 1987.

³ Woodward scheduled for consolidation with Walter Johnson in September 1987.

Source: Montgomery County Public Schools, Educational Facilities Planning & Development, the Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, and the Research Division, Montgomery County Planning Department.



Map 6
Highway Network for FY 87
Adopted Staging Ceilings

Table 5 LIST OF HIGHWAY PROJECTS BY POLICY AREA WHICH ARE ONE HUNDRED PERCENT PROGRAMMED FOR CONSTRUCTION IN THE FIRST FOUR YEARS OF THE MONTGOMERY COUNTY FY 1987-92 CIP OR THE MCDOT FY 1986-91 CONSOLIDATED TRANSPORTATION PROGRAM

Policy Area	Roadway	State, County Developer or City	Limits
<u>POTOMAC</u>	1. Seven Locks Road Resurfacing and Realignment	County	MacArthur Boulevard to Lillystone Drive; River Road (MD 190) to Dwight Drive
	2. Montrose Road Extended	County	Seven Locks Road to I-270
	3. Democracy Boulevard Extended	County	Gainsborough Road to Kentdale Drive
	4. Oaklyn Drive	County	Falls Road (MD 189) to Oaklyn Court
	5. Oaklyn Drive	Developer	Oaklyn Court to Bradley Boulevard/Persimmon Tree Road (MD 191)
<u>DAMASCUS</u>	6. Lewis Drive	County/State	Main Street (MD 27) to MD 27
	7. Sweepstakes Road	County	MD 27 to MD 124 (Approximately 50% widened by developer)
<u>GERMANTOWN EAST</u>	8. MD 118 Relocated	County/ Developer	MD 355 to I-270
<u>GERMANTOWN WEST</u>	9. Bridge Replacement	County	Waring Station Road
	10. Crystal Rock Drive*	County	Germantown Drive to Germantown Road (MD 118)
	11. Germantown Drive*	County	Crystal Rock Drive to Wynnfield Drive
	12. MD 118 Relocated	County/State	Wisteria Road to Clopper Road
	13. Clopper Road (MD 117)	County	Great Seneca Highway to MD 118 Relocated

(continued)

* These projects are listed as Impact Fee Improvements in the MCDOT FY 87-92 CIP.

Policy Area (continued)	Roadway	State, County Developer or City	Limits
<u>GAITHERSBURG EAST</u>	14. Frederick Avenue (MD 355)	State	South Summit Avenue to Chestnut Street
	15. Gude Drive	County	MD 355 to Southlawn Lane
	16. Gude Drive Railroad Bridge	County	Widening railroad bridge east of MD 355
	17. I-370 Metro Connection	State	I-270 to Shady Grove Metro Station access road
	18. I-270 Widening	State	Montgomery Village Avenue (MD 124) to Shady Grove Road
	19. Airpark Road Extended	County	Laytonsville Road (MD 124) to Shady Grove Road
	20. Muddy Branch Road	County/City	I-270 to West Diamond Avenue (MD 117)
<u>GAITHERSBURG WEST</u>	21. I-270 Interchange	State	West Diamond Ave. (MD 117) and Montgomery Village Ave. (MD 124)
	22. Sam Eig Highway	County	I-270 to Great Seneca Highway
	23. Fields Road	County	Muddy Branch Road to Omega Drive
	24. Great Seneca Highway Phase II	County	Quince Orchard Road (MD 124) to Darnestown Road (MD 28)
	25. Key West Avenue	County	Shady Grove Road to Gude Road Extended
	26. Key West Avenue - MD 28, Phase III	County	Great Seneca Highway to Shady Grove Road (widening)
	27. Longdraft Road	County	Quince Orchard Road (MD 124) to Clopper Road (MD 117)
	28. Shady Grove Road Widening West, Phase II	County	Research Boulevard between Shady Grove Road and Omega Drive
	29. Muddy Branch Road	County/City	Darnestown Road (MD 28) to I-270
	30. I-270 Widening	State	Montgomery Village Avenue (MD 124) to Shady Grove Road
	31. MD 28 Widening	State/Developer	Key West Avenue to Research Boulevard
<u>ROCKVILLE</u>	32. I-270 Widening, including Falls Road (MD 189) Interchange	State	Shady Grove Road to Montrose Road
<u>NORTH BETHESDA</u>	33. Ritchie Parkway	Rockville/County State/Developer	Seven Locks Road to Rockville Pike (MD 355)
	34. I-270 Widening	State	Montrose Road to I-270 Spur
<u>BETHESDA</u>	35. I-495 Capital Beltway	State	Wisconsin Avenue (MD 355) to Georgia Avenue (MD 97)
	36. Woodmont Avenue, Wisconsin Avenue to Battery Lane	County	Wisconsin Avenue (MD 355) to Battery Lane
	37. Woodmont Avenue Extended	County	Montgomery Lane to Leland Avenue
	38. Friendship Boulevard/Hills Plaza	County	Willard Avenue to Western Avenue
<u>SILVER SPRING/ TAKOMA PARK</u>	39. I-495 Capital Beltway	State	Wisconsin Avenue (MD 355) to Georgia Avenue (MD 97)
<u>KENSINGTON/ WHEATON</u>	40. Layhill Road (MD 182)	State	Georgia Avenue (MD 97) to Longmead Road
<u>ROCK CREEK</u>	41. Airpark Road Extended	County	Laytonsville Road (MD 124) to Shady Grove Road
<u>OLNEY</u>	42. Georgia Avenue (MD 97)	County/State	Norbeck Road (MD 28) to south of Olney-Sandy Spring Road (MD 108)
<u>CLOVERLY</u>	43. Bonifant Road	County	Layhill Road (MD 182) to New Hampshire Avenue (MD 650)
	44. Good Hope Road Realignment	County	To New Hampshire Avenue (MD 650) and New Bonifant Road
	45. MD 28 - MD 198 Connector	County/State	Layhill Road (MD 182) to New Hampshire Avenue (MD 650)
<u>FAIRLAND/ WHITE OAK</u>	46. Briggs Chaney Realignment	County	At Old Columbia Pike
	47. Columbia Pike (US 29)*	County/State/ Developer	Industrial Parkway to Greencastle Road
	48. East Randolph Road, Phase I*	County	New Hampshire Avenue to Fairland Road
	49. Fairland Road	County	East Randolph Road to Columbia Pike (US 29)

* These projects are listed as Impact Fee Improvements in the MCDOT FY 87-92 CIP.

Trends and Forecasts

HIGHLIGHTS

TRENDS

Non-Residential Buildings

Nearly 6 million square feet of non-residential space were completed in the County during 1985. This is the greatest single-year construction activity in the past decade. The 1979-1984 average annual construction rate was 3.4 million square feet. Office space accounted for 62 percent of the 1985 total non-residential space completions.

The explosion in speculative, new office space construction has resulted in a large inventory of unoccupied office space, with current office vacancies estimated at 16 percent. (Previous County office space vacancies averaged 5 percent.)

Greatest office space gainers are Gaithersburg East, North Bethesda, and Bethesda policy areas, with much of the new space linked to metro station development.

New industrial/warehouse space has developed at record levels. Its 1984, 90 percent occupancy rate reflects the more conservative pattern of "building to suit" and also the wide range of uses to which such space can be utilized, e.g. storage, manufacturing, wholesaling and retailing.

Jobs

Annual at-place job growth has been spectacular, increasing by a record 25,000 between 1983-1984, and an estimated 15,000 during 1984 and 1985. These gains are compared to an average annual growth of 7,000 jobs during the late 1970's. The private service sector, the major source of growth, accounted for 60 percent of all County at-place job growth between 1979 and 1984.

Residential Buildings

Nearly 9,800 dwelling units were completed in the County during 1985. Rapid employment growth, lower mortgage interest rates, the County's "quality of life" image, and high levels of locally bond financed rental housing production have contributed to the County's strongest residential construction boom in over 20 years.

Montgomery County's share of the region's residential building permit activity during the 1980's has exceeded one-third, approaching 40 percent in 1983 and amounting to 37 percent in 1985.

Lower priced townhouse production continues to dominate Montgomery new sales housing output. Lower interest rates have recently enhanced general affordability, and detached single-family housing's share of sales output has been increasing.

Two-thirds of total County housing completions have been located in the I-270 and US 29 corridors.

Prices for new sales housing, both detached and townhouse have been rising. Existing home resale prices have also increased, but not as greatly. Very active resale activity in the Wheaton and Rockville areas, characterized by their lower housing prices, have slowed the advance of the County-wide median price increases for existing units.

Housing Affordability

Montgomery County fares very well in the new housing affordability competition compared to the nation as a whole and to the entire metropolitan region. This advantage is attributed to the substantially higher median household incomes of County residents and to the relatively more accessible new housing prices resulting from dominating townhouse production.

FORECAST

Jobs

At-place jobs are likely to increase (in the intermediate scenario) at an annual average of 9,000 for each of the three forecast periods, reaching a total of 465,000 jobs at the end of the 10-year period. The high level forecast anticipates an average gain of 12,500 per year, nearly 40 percent greater than the intermediate increase rate. The low forecast expects a 33 percent slower growth rate, or 6,000 annually, for the 10-year period.

Service sector job growth, following national trends, is expected to provide the greatest number of additional at-place jobs.

National economic fluctuations are likely to create substantial year-to-year job gain fluctuations. The region's basic underlying economic strengths of government, national headquarters locus, and international centers should help to

buffer it and the County from the severest fluctuations of the national economy.

Housing

Housing production is expected to average 5,700 units per year (in the intermediate scenario) over the 10-year forecast period, bringing the County's total housing stock to 288,900. The high level forecast anticipates an annual average gain of 7,200, 26 percent greater than the intermediate. For the 10-year period, the low forecast anticipates a 25 percent slower growth rate, or 4,300 units annually.

Housing production for the immediate short-term period is expected to remain at high levels, but is likely to drop substantially when the existing production pipeline of tax exempt bond financed rental housing is exhausted.

The future production of privately financed rental housing is uncertain as investors evaluate the consequences of the new Federal Tax Reform Act. A production hiatus is anticipated, after which generally increased rent levels and tightening vacancies are likely to restimulate production.

A maturing County population is expected to cause a diminished demand for lower priced starter sales housing. Industry is likely to provide increased amounts of higher priced, trade up sales housing targeted to the higher income, mature sector of the market.

The two major growth corridors of the County, I-270 and US 29, are expected to dominate (60 percent) total County housing production for the FY 87-93 six-year forecast period.

People

County (intermediate level) population growth is expected to show its highest annual gain of 22,500 persons, between 1986-1987. For the next two calendar years, the increase is likely to average

15,000 annually, and thereafter, through 1995, 7,200 per year. The higher gains of earlier years can be linked to anticipated continuing high levels of affordable townhouse and rental housing production which will attract numerous in-migrants.

Total 1986-1996 population growth will amount to 103,200, a 16.3 percent increase. This is compared to the 1970-1980 decennial increase of 56,244, a 10.8 percent growth. The forecast period's proportionately greater growth is attributed to a larger population base in 1986, a higher number of births, and in-migration resulting from high levels of affordable housing production.

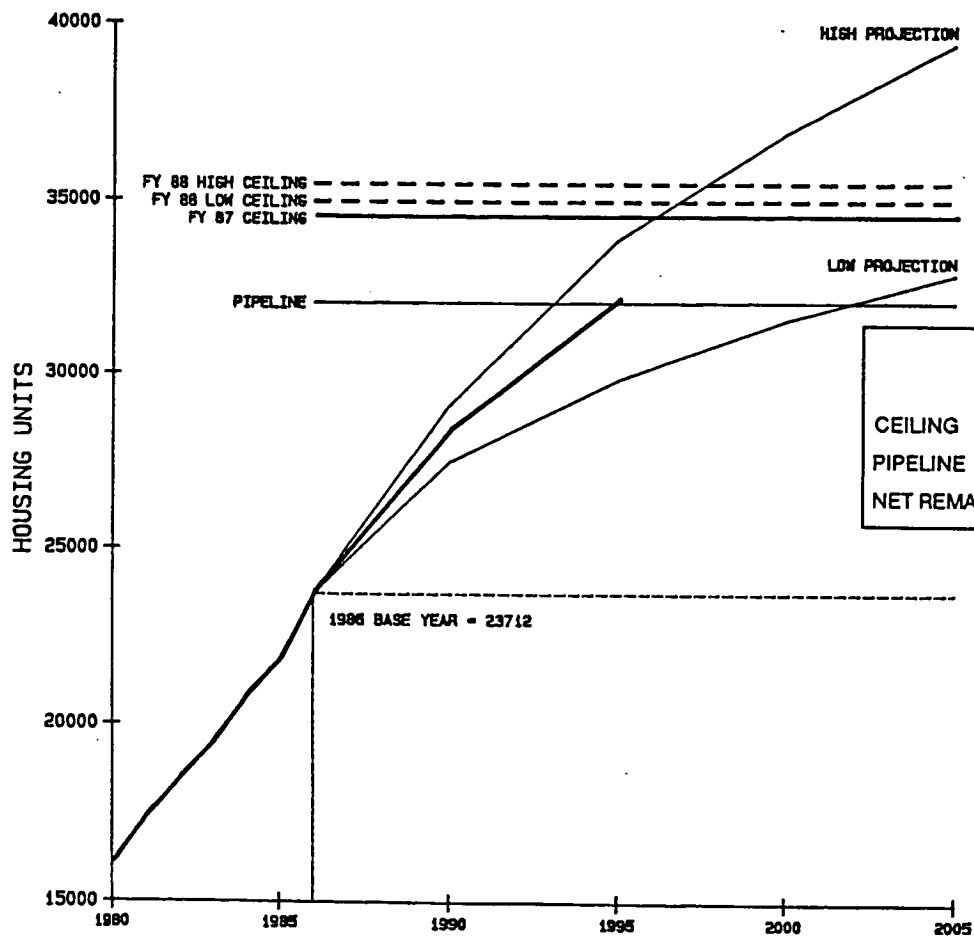
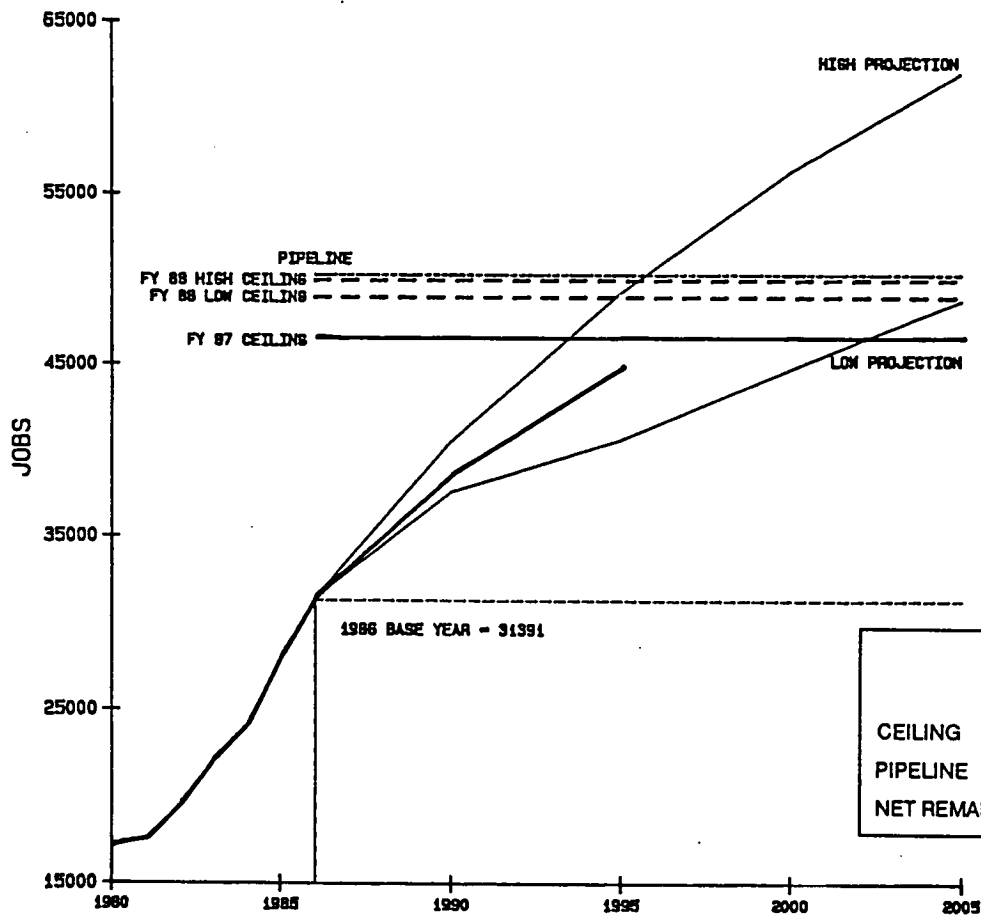
The County's households are expected to increase 1986-1996 by 59,900, or 24.4 percent. This is compared to the 1970-1980 growth of 54,843, or 34 percent. Despite the substantially larger population base of 1986, the household increase differential between the two periods amounts to only 5,000. The comparative slowdown in household growth can be linked to fewer persons in the

younger, most active household formation years. Fewer one-person households contributes to a slowdown in the trend of decreasing average household size. Also, a higher birth rate will contribute to an increased number of larger-size households.

Births

A relatively high number of births is expected to continue to increase elementary school enrollment through at least 1995. After 1995, the elementary aged school population is expected to remain relatively stable with increases beginning for secondary school age population. Given 9,944 births in Montgomery County in 1985, an historically high kindergarten enrollment is anticipated for 1990. Births are expected to remain at high levels for the next 10 to 15 years. A precipitous drop in births from current highs is not expected to occur in the future, since birth rates have generally stabilized. Montgomery County will not parallel national declines in childbearing age women at the end of this decade. Continued growth in housing will result in the in-migration of women aged 15-44.

GAITHERSBURG EAST POLICY AREA



**THE
FRAMEWORK
FOR
POLICY**

FRAMEWORK FOR POLICY

The Quality of Life Wheel

The establishment of a comprehensive growth policy involves balancing the needs of many different elements of society. To keep these diverse elements in perspective requires a mental framework, or model. The model used in this report establishes a growth policy hub at that center of a quality of life wheel. The concept of a hub within a wheel, whose spokes reach out into all the detailed facets of county life, seems appropriate to a policy exercise that seeks to achieve a dynamic balance among complex elements over time.

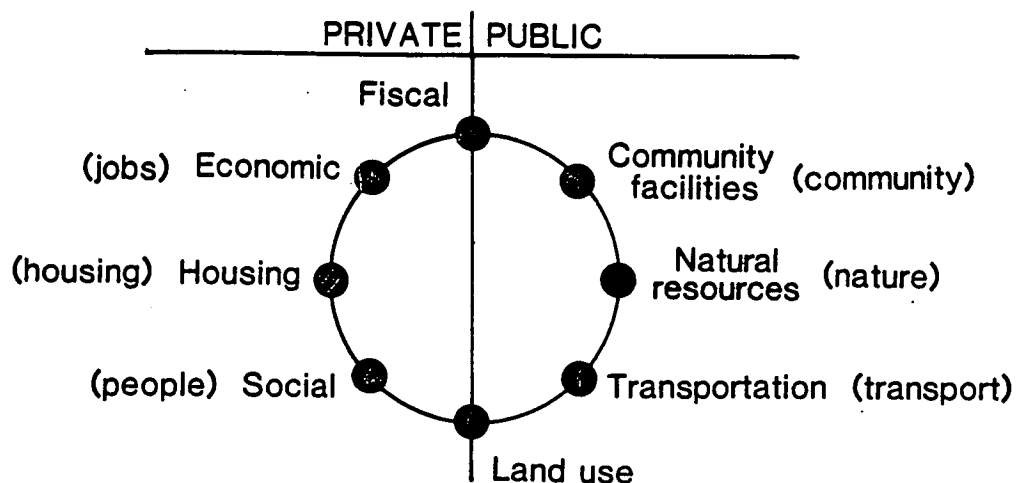
The growth policy (GP) hub of this quality of life (QL) wheel has eight component parts. Each is a policy element in its own right. They are called:

1. Economic Policy
2. Housing Policy
3. Social Policy
4. Transportation Policy
5. Natural Resources Policy
6. Community Facilities Policy
7. Fiscal Policy
8. Land Use Policy

The two most important questions are: (1) how are these eight policy elements balanced with regard to each other?; and (2) in what direction is the whole quality of life wheel aligned? To align the larger QL wheel with the goals of the population is the task of growth POLICY. To keep balance among the spokes of the QL wheel that emanate from this hub is the task of growth MANAGEMENT.

The GP hub must be viewed within the context of the powers available to government for dealing with growth. They are essentially only two: the police power and the purse power. The first permits government to place restrictions on the property rights of individuals within the private sector, and the second permits government to collect tax revenue for public facilities from individuals within the private sector. However, these powers are limited by the constitution of the United States. The constitutional dividing line between the private sector and the public sector sets up the basic field on which the growth policy exercise must be played. Figure 1 places the GP hub within this field.

FIGURE 1

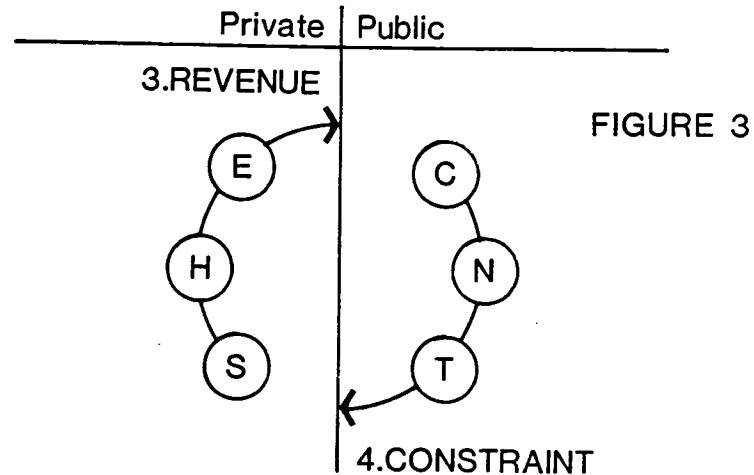
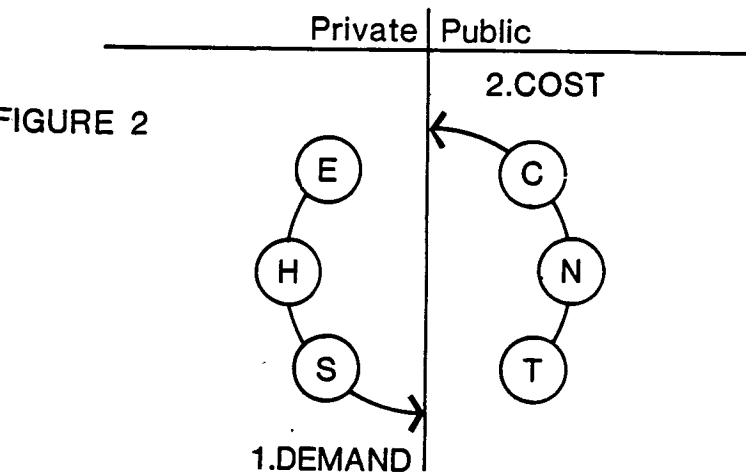


Policy elements one through six deal with the six major substantive aspects of suburban growth: jobs, housing, people, transport, nature, and community. Jobs, Housing, and People are elements of life which fall primarily in the private sector. That is to say, the initiative for change lies primarily with individuals, rather than with government. By contrast, Transport, Nature, and Community are elements which fall primarily in the public sector. That is to say, the initiative for change rests primarily with the government, rather than with private individuals.

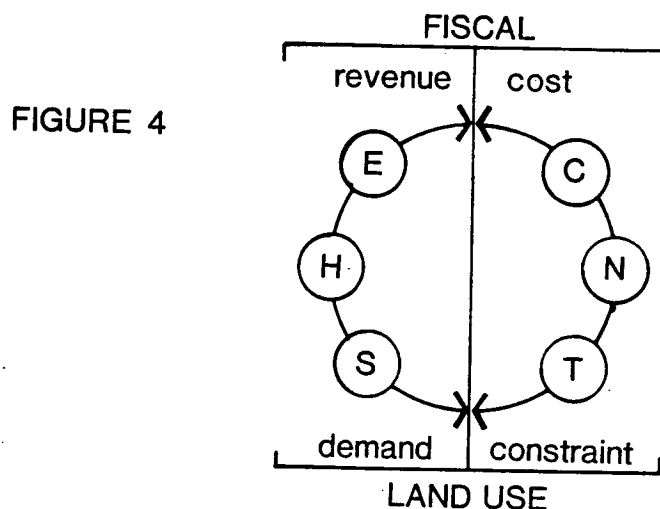
By Transport, we mean primarily the provision of public facilities which enable the movement of people and goods to occur, such as roads, transit, para-transit, public parking, and related governmental activities. By Nature, we mean primarily the provision of public facilities which protect the public from the effects of pollution, such as water and sewer services, and which more generally, protect the "natural" environment from the detrimental effects of the "built" environment, through the preservation of open spaces, parkland, wetlands, trees, and other natural resources. By Community, we mean primarily the provision of public facilities which provide and enhance the collective safety and well-being of local communities, such as schools, police and fire/rescue stations, libraries, civic centers, playfields and active recreation centers, etc.

Figures 2 and 3 illustrate some of the forces at work among these six elements. Growth in the private sector tends to require the development of land, and to create a demand for growth in public sector facilities. (Figure 2 - Vector #1.) Public sector growth, in turn, generates a cost that must be borne by the private sector. (Figure 2 - Vector #2.) Whatever cost is accepted by the public sector must be matched in turn by revenue from the private sector, whether collected directly by local government, or provided by grants from state or federal governments. (Figure 3 - Vector #3.) And finally, excesses in the character and rate of private sector growth must be constrained to some degree, to achieve an orderly pattern and pace that

avoids the nuisance, pollution and congestion effects of incompatible land uses and inadequate public facilities. (Figure 3-Vector #4.)

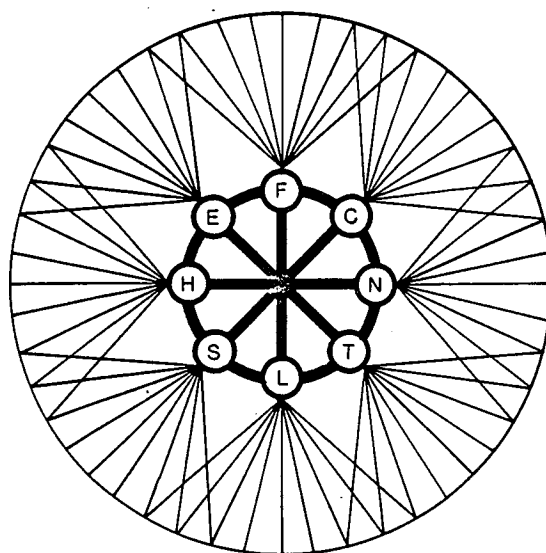


The combined pattern of these four directional forces reveals that local government needs to maintain a coordinated balance in two critical areas that cross the boundary line between the private and public sector. (Figure 4.) The first is the point at which the costs of public facilities must be balanced by the revenues needed to pay for them, through the use of the purse power. This is the area of Fiscal Policy. The second is the point at which the demands for land development must be balanced by the constraints needed to maintain pattern and pace, through the use of the police power. This is the area of Land Use Policy.



With the addition of those two critical balancing elements, the growth policy hub is complete. (Figure 5.) Balanced equilibrium between Fiscal Policy and Land Use Policy is the key to aligning the quality of life wheel with the goals of the population. But maintaining linked coordination among all eight of the hub elements is necessary to keep balance among the decision-tree spokes that emanate out into the quality of life wheel. Like the quality circles of business and industry, the quality of life wheel must blend and coordinate the perspectives of all its members in order to achieve an integrated product. Fortunately, the legal framework is now in place to permit this coordination to be improved upon.

FIGURE 5



QUALITY
OF
LIFE
WHEEL

In the Fiscal Policy area, the County Charter calls for the County Executive to produce annually a Capital Improvements Program and Operating Budget (cost) and a Fiscal Plan (revenue), both of which are adopted by the County Council. Similarly in the Land Use Policy area, the Regional District Act permits the Planning Board to prepare annual Growth Forecasts (demand), and a General Plan, with amendments such as the area master and sector plans and this Annual Growth Policy, (all adopted also by the County Council, after review by the Executive), to guide such land use regulations as the zoning and subdivision ordinances (constraint). In the area of the other six policy elements, the County Council also can provide guidance through the process of departmental and agency budget and program approval. With the passage of legislation establishing an Annual Growth Policy, the opportunity is available to increase the level of coordination among the many separate agencies of state and local government to a significant degree.

Current Goals and Policies

Beyond the policy mechanisms by which growth may be managed lies the question of what goals should be served by the growth management exercise. It is this question that seems to underlie the frequently expressed opinion that government should express

its "policy" towards growth. The ability to define common goals for a pluralistic and dynamic society is a difficult exercise. Goal statements that are excessively broad or vague run the risk of providing no helpful guidance. On the other hand, goal statements that are too narrow and rigid run the risk of becoming abstract battlegrounds for competing interest groups. Divisive political battles frequently can be avoided if the issues are faced, one by one, under concrete circumstances rather than as abstract principles.

In spite of the problem of finding the most perfect and succinct expression for them, there is in existence a set of policies for the eight basic elements of growth policy. They are not yet perfectly balanced. Prior to the publication of this document these policies have rarely been arrayed together all in one place, and rarely reconciled explicitly with each other.

This previous absence of a comprehensive and explicitly described set of policies is not an unusual state of affairs. In fact, it is the norm for most governments across the nation, including the state and federal governments. It should be recognized, therefore, that Montgomery County's efforts herein to coordinate all its activities, through an explicit annual growth policy, is a pioneering effort, one which can and should be improved upon as experience with its use accumulates. The following articulates a short summary of current policies for each of the six basic growth elements, as well as for the two major mechanisms for seeking balance among them, fiscal policy and land use policy.

Economic Policy

Current policy towards employment is best observed through the budget, program, publications and activities of the Office of Economic Development (OED), and the Montgomery County Planning Board (MCPB) of the Maryland-National Capital Park and Planning Commission. OED is responsible for a variety of economic development promotional and support activities, in liaison with the various Chambers of Commerce and other business interests within the County. MCPB is responsible for initiating and updating land use plans which guide the provision of zoned land suitably located to accommodate the foreseeable employment needs of the County, and for providing market forecasts of jobs and related economic considerations. In general, OED, with the assistance of an Economic Advisory Council of prominent local business executives, is promoting the growth of employment opportunities in the county, through a variety of activities which include the effort to attract and retain prominent private corporations and major federal and state agencies, as well as to assist existing and/or small or minority businesses to grow and expand within the County. Special attention is being given to high-tech business in all its manifestations, since it already comprises a large segment of the existing industrial base. Also, the county, as well as the Washington area generally, is well known for the high

quality and large size of its well educated and technically qualified labor force.

Bio-technology, in particular, is being focused on, because of the large and unusual conglomeration of existing biological and medical institutions already located here, which includes such outstanding organizations as the National Institute of Health. The County recently was successful in reaching out to attract, to its county-owned Life Sciences Center, a satellite high-tech educational facility from both the University of Maryland and the Johns Hopkins University. Those efforts, which have been going on for a number of years, have been quite successful, as reflected in the very large increases in employment growth that have been experienced over the past several years.

Other supporting activities include the use of local Industrial Revenue Bonds, which provide employment development projects with financing at below market interest rates, through an economic development program offered by the State of Maryland. Developers apply to OED, which screens the applications and recommends approval to the County Council, which must act affirmatively in order for them to qualify for state approval. The County's Revenue Authority also engages in some activities that affect employment, but in general the number of jobs affected by its activities are quite small.

Housing Policy

Current policy towards housing is best observed through the budget, program, publications and activities of the Department of Housing and Community Development (DHCD), the Housing Opportunities Commission (HOC), and the Montgomery County Planning Board (MCPB). DHCD is responsible for a wide variety of oversight and support programs related to the general subject of housing and community development, HOC generally constructs and manages various housing projects and programs which provide housing opportunities for eligible constituents at below market rents and prices. MCPB is responsible for initiating and updating land use plans which guide the provision of zoned land suitably located to accommodate the foreseeable housing needs of the County, and for providing market forecasts of housing development and related activities. In general, these agencies are promoting the maintenance of an open, fair and non-prejudiced private housing market in the County, which will permit households of varying incomes, ages, and lifestyles to find suitable accommodation in many parts of the County. They are also promoting the provision of a degree of subsidized housing programs to supplement what the private market cannot supply. The latter is intended to provide for those elements of the low and moderate income spectrum of the population, which would otherwise be unable to afford adequate housing within the County. Primarily, however, it is the private market which provides housing choices for the vast majority of the County's population.

In the past, most of the funding for the low and moderate income housing programs has come from the federal government, either directly through grants or indirectly through other economic incentive programs. In recent years, this federal aid has been declining, and appears to be very small for FY 88. The comparison of demand to supply is outlined in the Annual Housing Report, prepared by DHCD. In general, the potential demand for programs to reduce the cost of housing, so that it is affordable by a larger section of the population, far exceeds the money made available for them. Thus, the activities of DHCD and HOC currently add relatively small amounts of housing to the supply generated by the private market.

Another major program, specifically aimed at the middle income bracket, is established under the Moderate Priced Dwelling Unit Ordinance (MPDU). An adjunct to the Zoning Ordinance, this regulation requires all new housing projects, with 50 or more units, to sell or rent a minimum of 12-1/2 percent of its total units at prices which qualify as "moderate", under a price formula which is updated annually. This program is administered jointly by the Planning Board, which establishes the location of the units through its subdivision approval process; and by DHCD, which oversees the private formula and maintains lists of eligible buyers or renters; and by HOC, which has a legal right to first option on a proportion of the MPDU units under certain circumstances.

The MPDU ordinance has avoided court challenges of unconstitutionality by providing a bonus density of 20 percent over the "base" zoning density, a provision which in effect, compensates the developer for the economic loss incurred by the need to sell or rent the 12-1/2 percent of the units at below market prices. The physical side-effect of this bonus density is a slight increase in the resultant overall housing density in comparison to the density set forth in the adopted zoning map.

Social Policy

Social policy is a very broad category which could include a wide diversity of governmental activities, ranging from educational, cultural, and recreational through police, fire, and rescue protection to the many health and welfare programs which serve the needs of specifically disadvantaged groups and individuals. For the purposes of this growth policy framework model, it is expedient to separate this wide array of potential policy activities into those which have a significant physical expression in the form of buildings or land uses, and those whose functions primarily involve communications and funding. To put it another way, the latter are those whose land use and spatial presence is of relatively little consequence to the major growth patterns of the County.

Under this conceptual allocation, the educational, cultural, recreational, police, fire, and rescue activities are all classified as "community facilities," since they require separate

buildings and properties in order to function. They are explained under the Community Facilities Policy section outlined further below, which together with the Transportation Policy and Natural Resources Policy sections, comprise the three physical growth elements of the public facility infrastructure. Social policy as defined herein, therefore, deals primarily with what may be broadly categorized as health and welfare activities.

Current policy towards these activities is best observed through the budgets, programs, publications, and activities of such agencies as the Department of Health, Department of Alcohol, Drug Abuse, and Mental Health, Department of Social Services, Department of Family Relations, Office of Human Relations, and other agencies and organizations such as the Community Action Board, the Commission on Children and Youth, the Commission on Handicapped Individuals, the Mental Health Advisory Committee, the Drug Abuse Advisory Council, the Alcoholism Advisory Council, the Advisory Board on Victims and their Families, and similar organizations. Adopted plans relating to such activities include: the State Health Plan, the Health Systems and Annual Implementation Plan, the Annual Area Plan on Aging, the Action Plan for the Mentally Retarded/Developmentally Disabled, the Action Plan for the Chronically Mentally Ill, etc. The Montgomery County Planning Board is partially involved in such issues to the extent that their programs have implications for land use planning, such as is the case with certain day care programs for the elderly and children, the re-use of former school buildings for social service activities, etc. Current policy towards this broad array of activities may be summed up as a search for excellence in the provision of necessary governmental resources to enable the private citizens of the County to lead healthy lives within a caring community.

Transportation Policy

Current policy towards transportation is best observed through the budget, program, publication and activities of the Department of Transportation (MCDOT), the State Department of Transportation (MdDOT), and certain relevant activities of the federal Department of Transportation (USDOT), the Washington Metropolitan Area Transit Authority (WMATA), and the Montgomery County Planning Board (MCPB).

In general, MCDOT is responsible for the programming, construction, operation, and maintenance of the County's street and highway system, the central business district parking lots and garages, the County-owned bus system, the operation of traffic signal and signage systems, and various activities that provide or encourage alternative forms of travel, such as ridesharing, vanpooling, etc. WMATA is responsible for the programming, construction, operation and maintenance of the regional transit system, both rapid rail and bus, and certain ancillary activities such as the management of real estate and air rights development on property owned by WMATA. MdDOT is responsible for functions similar to those of MCDOT, except that its responsibilities are

limited to state owned highway and rights-of-way. MCPB is responsible for the preparation and updating of the Master Plans of Highways and Trails and Bikeways, and/or the transportation planning component of the General Plan, Area and Sector Master Plans, and related research and planning activities, including the maintenance and use of a computer model for simulating future traffic conditions and relating growth ceilings to road construction programs. USDOT becomes involved in county transportation matters from time to time when federal funding or legal requirements dictate the need for federal approval of state or county projects.

In general, it can be said that, for the past few years, great efforts have been made by the Montgomery County agencies to identify appropriate new road and transit projects, and to fund them to the maximum extent, and to build them as quickly as possible. A relatively high level of effort is also currently underway by the State Department of Transportation, especially with regard to federally funded interstate highway projects on I-270 and I-495. To speed up the construction of necessary new roads, the County has agreed to pay portions of the cost of certain critical state road projects, which would otherwise have been delayed further.

In addition to roads and transit, the county efforts include a variety of activities designed to induce shifts in the behavior of commuters, so as to reduce the number of vehicles on the roadways during peak hour periods. These efforts are collectively known as Traffic Alleviation Measures (TAMS). In the summer of 1986, the County Council adopted a series of such measures, and approved funding for initial efforts, under the heading of the Short Term Traffic Alleviation Measures (formerly known as the Interim Growth Policy). This present Growth Policy document recognizes, to an appropriate degree, the effect of the TAMS approved in the FY 88 CIP and Operating Budget.

Further background information on potential future road improvements and TAMS is contained in the publication "Alternative Transportation Scenarios and Staging Ceilings, A Staff Report by the Montgomery County Planning Department, M-NCPPC, October 28, 1986. The actual level of investment programmed for the next four years, in terms of road and transit programs and supporting TAM activities, is shown, in summary, in the Appendix of this FY 88 Growth Policy Report, and in detail in the FY 88-93 Adopted CIP and FY 87-88 Operating Budget, which is summarized in Chapter 5.

Natural Resources Policy

Current policy towards natural resources is best observed through the budget, program, publications and activities of the Department of Environmental Protection (DEP), the Washington Suburban Sanitary Commission (WSSC), and the Montgomery County Planning Board (MCPB. Related activities by the State Department

of Natural Resources and the federal Department of Environmental Protection are also relevant.

In general, DEP is responsible for the enforcement of regulations regarding public health, well water, septic tanks, solid waste, stormwater management, air quality, and related activities of the private sector which produce pollutant or toxic materials. WSSC is responsible for the construction and maintenance of the county's public water and sewerage facilities, which are guided broadly by a Ten Year Water and Sewerage Supply Plan. This plan is mandated by the State, prepared by DEP, reviewed by WSSC and M-NCPPC, and adopted by both the County Council and the State Department of Health. MCPB is responsible for the acquisition, development and maintenance of the county park system, which includes both natural stream valley parks and local and regional recreational activity parks, and for the overlay of the built environment on the natural environment, through the vehicle of recommended stream valley conservation plans, land use plans, and zoning maps, and the administration of subdivision and site plan approvals.

In general, it can be said that the County currently enjoys a very high level of quality with regard to its natural resources. Approximately one third of the county is being preserved for farming and open space, through the Agricultural Zone and the Transferable Development Rights program. The stream valley and recreational park system has been recognized nationally with various awards for excellence. The sediment control programs and flood control and stormwater management programs have been continuously improving, and are recognized as being in advance of much of the rest of the state and the nation. Considerable progress is being made towards coping with the ongoing problems of solid waste removal and sewage sludge disposal. Current policy is to continue to strive for excellence in the general field of natural resource protection and enhancement.

At present, there are no near term constraints on growth with respect to water and sewerage capacity. The recently approved expansion of the regional sewage treatment plant at Blue Plains is expected to provide growth capacity for the next decade and beyond. The county has land-banked a reserve sewage treatment plant site in Potomac, as well as several smaller sites in other locations. Water supply from the Potomac and Patuxent rivers must be constantly managed carefully during seasons of drought, but the supply is keeping pace with the demand. The extension of water and sewer service lines continues to be responsive to growth pressures, as controlled by the County Council through its annual adoption of the water and sewer category changes of the Ten Year Water and Sewerage Plan.

Community Facilities Policy

This policy element has been defined as including the educational, cultural, recreational, police, fire and rescue activities of government, since all of these tend to function

from separate buildings and properties which are located in relatively close proximity to the local communities which they serve. From a spatial or geographical perspective, they find physical expression in the form of a series of "points" scattered somewhat evenly over the developed residential landscape.

Current policy towards these functions is best observed through the budgets, programs, publications and activities of the relevant agencies and departments, including the Montgomery County Public School System (MCPS), Montgomery College (MC), the Public Library Department, the Department of Recreation, the Police Department, the Fire Department, and the Montgomery County Planning Board (MCPB). Each of these functional agencies is responsible for the construction, operation and maintenance of its ongoing service programs, which in several instances involve very large numbers of people and multiple activities. MCPB's role involves the acquisition and maintenance of recreational ballfields and other sports facilities, and the initiating and updating of land use plans that allocate sites for community facilities in appropriate spatial relationships to their surroundings.

By far the most dominant of these community facilities, from a growth policy perspective, is the Montgomery County Public School system. Governed by an independently elected Board of Education, its expenditures comprise almost half of the total annual operating budget for the County, and its educational policies are of vital concern to a large number of residents, many of whom belong to Parent-Teacher Associations which participate actively in the public discussion of educational programming activities.

MCPS enjoys a reputation as one of the best public school systems in the nation, and continues to seek for educational excellence to the extent that fiscal and management resources can provide. The establishment by the Board of Education of a minimum average pupil-teacher ratio for classrooms, and such other educational criteria as vertical grade level articulation and school clustering, and horizontal busing distances and attendance boundaries, all have effects on the holding capacity of the physical plant of the school system. Consequently, all these educational criteria have significant implications for both fiscal policy and land use policy considerations.

The school system, like the park system, is one of the most highly regarded of Montgomery County's assets, and as such is a contributor to the maintenance of a wide spread image of the County as a desirable place to live. Such images do help in attracting incoming migrants from other areas, and therefore tend to support other market trends favoring continued housing growth in the County.

Current policy on the part of the Board of Education is to accommodate future growth through the construction of new schools and the upgrading of existing ones, while maintaining a relatively

high level of stable educational performance criteria. With the previous surplus of down-County schools having been shrunk through a large number of school closing in the late 1970's and early 1980's, and with current forecasts showing a significant baby "boomlet" underway in the County, all indicators suggest that expanding school costs will need to be assessed carefully over the next several years, as an important element of overall growth policy.

The three other community facilities, in addition to schools, which are included in the Adequate Public Facilities Ordinance, are police and fire/rescue stations and health clinics. Current policy is to maintain these activities at a high level of competence and responsiveness, which, if maintained will allow these functions to expand into new locations as necessary to keep pace with growth. In general, the finding of sites for these facilities is not excessively difficult, so long as funding remains available, and they, therefore, tend to not constitute major constraints on growth.

Libraries, recreation centers, and local community parklands, while not covered under the APFO, are nevertheless considered to be significant amenity features that contribute to the sense of local community identity to that extent that the current high pace of housing and employment growth place a squeeze on fiscal resources, some careful balancing of investment priorities will be needed in future years.

Fiscal Policy

Current fiscal policy is best observed through the actions of the County Council in adopting the FY 88-93 CIP and the FY 87-88 Operating Budget, as well as in the Fiscal Policy section of the County Executive's recommended budget.

In simplified summary, the current Fiscal Policy section of the budget contains the following policy objectives:

1. To balance the budget annually, including some amount of budgeted surplus each year.
2. To take no fiscal action that would be detrimental to the high credit ratings which the County now enjoys in national bond markets.
3. To increase the use of current revenues to finance capital projects, if necessary to avoid excessive bond ratios.
4. To use revenue bonds to finance capital for self-sustaining governmental operations.
5. To charge user fees for public services where feasible.

6. To fund in a fully appropriate way all the facilities, programs, and services which the County has made a commitment to provide.
7. To control costs through prudent management.
8. To decrease dependence on the property tax, by implementing minor taxes and other revenue sources and reducing tax rates.
9. To keep the increase in the average tax bill below the rate of inflation.
10. To build the assessable tax base through balanced growth in private sector employment and housing development.

Land Use Policy

Current land use policy is best observed through the actions of the County council in adopting land use plans, zoning map and text amendments, subdivision and other development regulations amendments, and related planning and coordinating activities such as this Annual Growth Policy, as well as the budget, program, publications, and activities of the Montgomery County Planning Board, the Board of Appeals, and various departments under the County Executive, such as the Office of Economic Development, the Department of Housing and Community Development, the Department of Transportation and the Department of Environmental Protection.

The same basic land use plan has been in effect in Montgomery County since 1964, a record probably unequaled by any other local jurisdiction in the nation. Called the Wedges and Corridors General Plan for Montgomery County, it was first adopted by the Montgomery County Planning Board in 1964. In 1970, it was updated and adopted in revised form by the Montgomery County Council. Since that time it has been amended numerous times by the County, through the adoption of various local area Master and Sector Plans, and functional plans such as the Master Plan of Highways, the Regional Rapid Rail Transit System Plan, the Ten-Year Water Supply and Sewerage System and Solid Waste Plans, the Agricultural Preservation Plan, the Park, Recreation and Open Space Plan, and various Watershed Preservation Plans, etc.

Although some of its detailed provisions have changed as a consequence of these amendments, the basic concept of the original plan has been adhered to very well. This concept called for an urban ring surrounding the boundary of the District of Columbia, and an urban corridor extending north from Rockville up the I-270 transportation corridor. On either side of this urban corridor, development density was shown tapering off into "wedges" of agricultural, open space, and low density residential uses, which abut the Patuxent and Potomac Rivers along the north-east and south-west boundaries of the County.

The map on page 30 shows how relatively recent agricultural and low density residential zoning has continued the concept of the wedge areas, and how major employment growth over the past five years has been concentrated in the corridor areas. The table on page 31 shows the currently estimated holding capacity of the General Plan, and its relationship to the present level of development, and to that which would be permitted under the staging ceilings shown in Chapter 4.

**FOCAL
POINTS
FOR
POLICY**

FOCAL POINTS FOR POLICY

Introduction

This chapter focuses on some specific points of emphasis that deserve attention in FY 88. Within the general policy framework outlined in the preceding chapter, there are some specific issues that warrant a focused attention at the present time. Policy guidance with respect to such current issues are outlined below.*

*NOTE: The Executive may wish to use this chapter to address selected localized growth management problems, such as the examples cited by Planning Policies Committee Chairman John Menke in his testimony to the Planning Board of October 30, 1986 (i.e., Silver Spring CBD core, Shady Grove Life Sciences Center, and North Bethesda). The Planning Board and staff are willing to assist in further developing such ideas, but have been unable to do so thus far because of the time needed to complete the main document. With this work now in hand, however, including the companion staff reports on Trends and Forecasts, Alternative Transportation Scenarios, and Alternative School Scenarios, a base of information has been established on which further detailed studies could be built.

**THE
ADEQUATE
PUBLIC
FACILITIES
ORDINANCE**

ADEQUATE PUBLIC FACILITIES ORDINANCE

General Guidelines

The Montgomery County Subdivision Ordinance authorizes the Montgomery County Planning Board to review all preliminary plans of subdivision for adequacy of programmed public facilities, and to reject any that do not conform to this "Adequate Public Facilities" provision of the ordinance (APFO). The following guidelines describe the methods and criteria that the Planning Board and its staff will use in administering this activity. These guidelines supersede all previous ones issued by the Planning Board.

The method of administration outlined herein may apply two different types of test to a subdivision application. One is called the Policy Area Review. The other is called the Local Area Review.

The Policy Area Review divides the County into policy areas. Each policy area is assigned a staging ceiling, which is defined as the maximum amount of land development which can be accommodated by the existing and programmed public facilities serving the area, at an assigned level of service standard. The staging ceilings described in this growth policy are to remain in existence during the period of Fiscal Year 1988 unless amended subsequently by the County Council.

Each subdivision preliminary plan application shall be reviewed by the Planning Board, with recommendations from the Planning Department staff, the County Executive, and all other relevant agencies to determine if the future demand for public facilities generated by the proposed subdivision will exceed the adopted staging ceiling, after taking into account the effect of existing and previously approved development. If the future demand from the subdivision does exceed the adopted ceiling, then the Planning Board shall deny the subdivision application, except under special circumstances which are described further below under the heading Ceiling Flexibility.

In addition to this review there shall be performed, in certain circumstances, another test, called the Local Area Review. The Planning Board shall adopt, and amend from time to time as appropriate, administrative regulations for Local Area Review standards and procedures.

The purpose of the Policy Area Review is to place the individual subdivision within the proper context of a comprehensive, county wide, balanced growth allocation, which takes account of, and properly allows for, the upstream and downstream impacts of development in one area as it affects another. The purpose of the Local Area Review is to prevent the development of excessive and unacceptable localized congestion, which, without this additional review, possibly could occur, even although the total

number of jobs or housing units from the new subdivision remains below the policy area ceiling.

The policy area ceilings described in this AGP have been developed through a comprehensive planning and measuring process. These ceilings and their supporting planning and measurement process have been the subject of several public hearings and substantial review during worksessions by the County Council. Recommendations have been received from both the Planning Board and the County Executive, as well as other relevant agencies. Public testimony has been recorded and available during Council worksessions. The result is a legislative judgment that, all things considered, these staging ceilings and procedures reflect a reasonable, appropriate, and desirable set of interim growth limits, which are properly related to the ability of the County to schedule and construct facilities necessary to accommodate growth at reasonable levels of public service.

These guidelines are not intended to be used as a means for government to avoid its responsibility for providing adequate public facilities, and alternatives are available for developers who wish to proceed in advance of the adopted public facilities program, through the provision of additional public facility capacity beyond that contained in the adopted Capital Improvements Program, or through other measures which accomplish an equivalent effect.

Specific Policies and Facility Standards

Montgomery County's general growth policy with regard to public facilities is to avoid excessive congestion in the use of public facilities by: (1) limiting the amount of growth permissible under approved subdivisions, to a level that does not exceed the future ability of the County and state governments to program facilities to keep pace with it in real time; and (2) continuing to program facilities so that they do come on line in time to match the pace of market-driven growth, up to the ceilings established for subdivision approvals.

The first objective relates to the APFO. The second relates to the CIP. To accomplish the first objective, it is desirable to take a slightly different approach to the eight different public facilities covered by the APFO (i.e., roads, transit, water, sewerage, schools, police, fire, and health). In all cases, however, a comparison must be made between future programmed growth in the relevant public facility, and future potential growth in Jobs, Housing, and Population. How these comparisons are to be made, for each of the facilities covered by the APFO, is outlined below.

Transportation Facilities

Transportation Policy Areas have boundaries that are generally co-terminous with the Planning Area boundaries used for the adoption of Comprehensive Master Plans (see Appendix for defini-

tions and descriptions). Each policy area is also composed of a number of smaller areas called Traffic Sheds, which in turn are composed of smaller areas called Traffic Zones. The Traffic Zone constitutes the atomic unit of geography for the purposes of collecting and analyzing data pertaining to growth, development, and traffic generation.

Map 1 shows the policy areas, and also indicates the desirable "Level of Service" that has been assigned to each of them, for the purpose of setting standards against which to measure the adequacy of public facility service. These levels of service represent a statistical average over the whole policy area, and are calculated using a variety of techniques which are explained more thoroughly in the Appendix. In general, the methodology used to establish these ceilings is based on a policy of permitting greater traffic congestion to occur in areas which have greater transit accessibility to provide an alternative mode of travel.

Through the use of these measurement techniques, including a complex computerized traffic simulation model, the Planning staff have computed a balanced relationship between a set of transportation facilities and a geographical pattern of jobs and housing units. Policy Area ceilings have been established through a process by which the planning staff assigns a hypothetical future land use pattern (i.e., jobs, housing units, and population) to the County, and tests its traffic impact by use of this model. Through a process of repetitive trial and error, this land use pattern has been modified so that it produces a traffic volume and distribution that does not exceed the desired standard established earlier and shown in Map 1. The ceilings developed by this method are shown in Table 1.

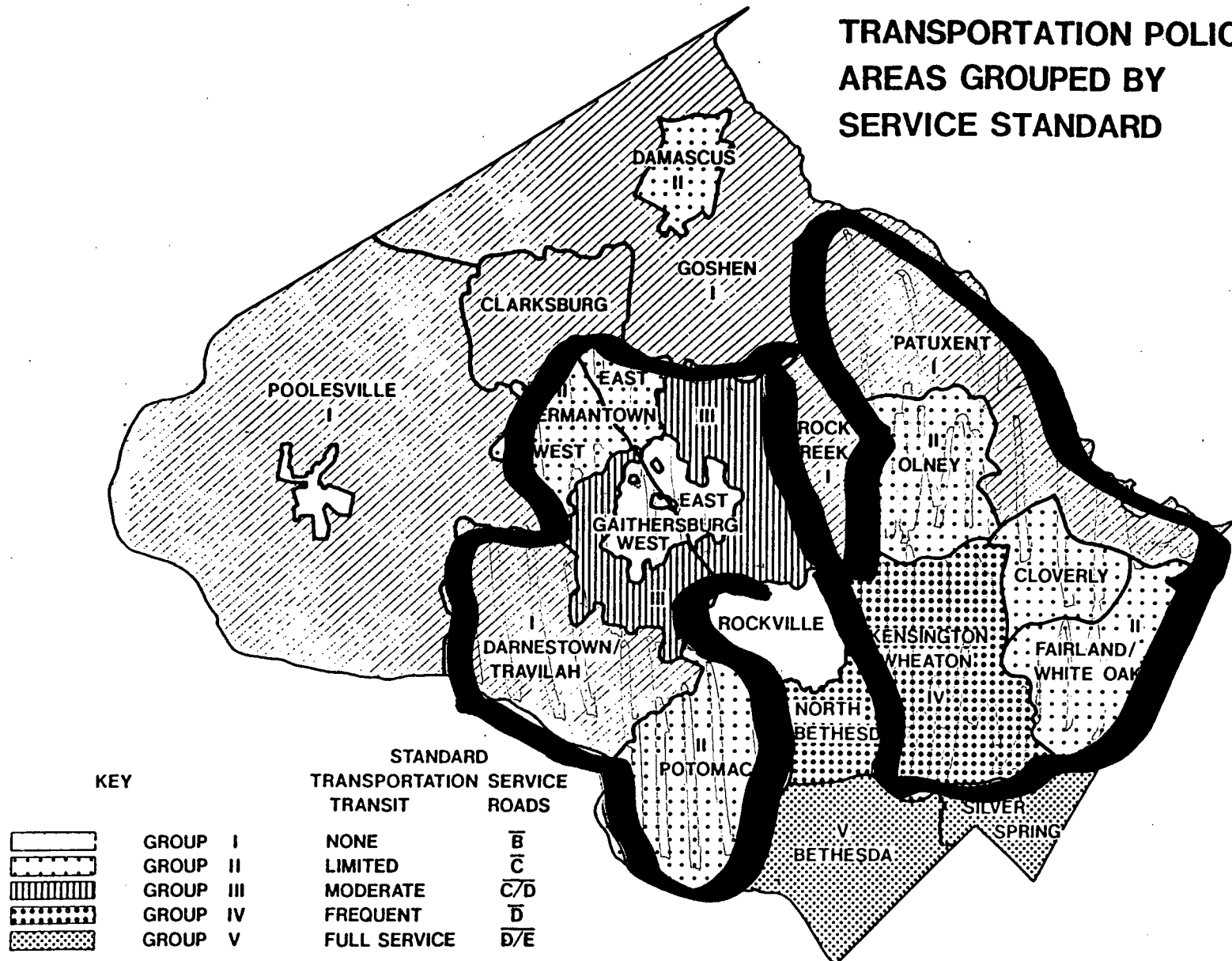
For the purposes of establishing these ceilings, a programmed transportation project has been defined as one which is scheduled to expend 100 percent of the funds necessary for its construction within the first four years of the CIP. These ceilings, therefore, reflect the maximum overall development within the policy areas that is consistent with the levels of service shown on Map 1 for each policy area and based on the transportation projects programmed for the first four years of the adopted CIP.

Planning staff shall keep a record of all previously approved preliminary plans and other data about the status of development projects, and continuously update the pipeline number of approved preliminary plans at frequent intervals, thus constantly keeping

*NOTE: Two tables are included in this Planning Board Draft AGP, reflecting a high and a low scenario for the FY 88-93 CIP, as described in the Capital Improvements Program Chapter. This table will be revised at the request of the Executive to correspond to whatever alternative CIP he intends to recommend for FY 88-93.

Map 1

TRANSPORTATION POLICY AREAS GROUPED BY SERVICE STANDARD



SOURCE : M-NCPPC

Table 1-A

LOW SCENARIO

	A		B		C		D		E		F	
	Pipeline of Approved Subdivisions (as of 10/1/86) (#1)		Ceiling Adopted For Use In FY 87 (Based On FY 87-92 Adopted CIP) ²		Capacity Remaining Under FY 87 Adopted Ceiling (as of 10/1/86) (#3, 4) (B-A)		Ceiling For Use in FY 88 Under Low Scenario for FY 88-93 CIP (#5)		Capacity Remaining Under FY 88 Low Scenario Ceiling (as of 10/1/86) (D-A)		Potential Additional Capacity From Short-Term Traffic Alleviation Measures (#6)	
POLICY AREAS	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU
Potomac (#7)	1,897	2,864	3,371	3,925	1,474	1,061	3,371	3,925	1,474	1,061	0	0
Darnestown/Travilah (#7)												
Poolesville (#7)												
Goshen (#7)												
Damascus	161	1,055	(1,385)	(565)	(1,546)	(1,620)	(1,385)	(565)	(1,546)	(1,620)	0	0
Clarksburg (#7)												
Germantown East	5,554	1,514	3,744	(713)	(1,810)	(2,227)	4,744	287	(810)	(1,227)	25	75
Germantown West	6,090	8,089	906	(1,647)	(5,184)	(9,736)	6,906	3,853	816	(4,236)	25	100
Gaithersburg East	18,857	8,339	14,988	10,739	(3,869)	2,400	17,488	11,239	(1,369)	2,900	75	50
Gaithersburg West (#8)	16,427	6,164	18,465	6,188	2,038	24	22,465	7,688	6,038	1,524	25	25
Rockville (#7)												
North Bethesda	15,818	2,437	14,499	2,940	(1,319)	503	14,499	2,940	(1,319)	503	275	75
Bethesda (#9)	18,991	894	19,906	4,083	915	3,189	19,906	4,083	915	3,189	500	125
Silver Spring/Takoma Park	14,443	301	17,037	2,127	2,594	1,826	17,037	2,127	2,594	1,826	450	50
Kensington/Wheaton	6,037	5,289	12,208	6,194	6,171	365	12,208	6,694	6,171	865	0	50
Rock Creek (#7)												
Olney	1,240	3,177	1,687	3,900	447	723	1,687	3,900	447	723	0	0
Patuxent (#7)												
Cloverly	188	1,514	693	(290)	505	(1,804)	693	(290)	505	(1,804)	0	0
Fairland/White Oak	11,373	8,181	6,428	5,603	(4,945)	(2,578)	8,428	7,103	(2,945)	(1,078)	100	300
TOTAL CAPACITY FOR NEW SUBDIVISIONS	117,076	50,358	113,932	45,699	14,144	10,091	129,432	53,839	18,960	12,591	1,475	850

- Pipeline of approved subdivisions as of October 1, 1986.
- These numbers indicate the amount by which the adopted FY 87 Staging Ceiling exceeds the level of existing development as of January 1, 1986. Negative numbers indicate the amount by which existing development as of January 1, 1986, exceeds the adopted FY 87 ceiling. These are treated as zero ceilings for the purpose of calculating total capacity.
- Capacity remaining after pipeline is subtracted from adopted FY 87 Staging Ceiling. These numbers may change every week as new subdivisions are approved by the Planning Board and are added to the pipeline.
- Negative numbers indicate the amount by which existing plus approved development (i.e., pipeline) exceeds the cumulative capacity of the ceiling identified in the heading of the column. Negative numbers are treated as zero ceilings for the purpose of calculating total capacity for new subdivisions.
- Available capacity with the advancement of the fifth of the FY 87-92 CIP to the fourth year of FY 88-93 CIP. Also advances the fifth year of MDDOT FY 86-91 CIP to the fourth year of their FY 87-92 CIP.
- Available capacity with addition of short-term alleviation measures, for the set of measures adopted by the Council on September 30, 1986, for implementation in FY 87 and FY 88. These numbers reflect only those measures which have had specific budget appropriations and similar actions being done through developer participation agreements required at the time of approval of several preliminary plans. Those numbers reflect 50% of the estimated reduction obtained from these measures.
- Staging ceilings are not used for these Policy Areas.
- Preliminary plans within the Shady Grove West area will be subject to the conditions placed upon them in the Gaithersburg Master Plan.
- The Bethesda CBD Sector Plan supersedes the threshold established for the Bethesda Policy Area.

Table I-B

HIGH SCENARIO

POLICY AREAS	A		B		C		D		E		F	
	Pipeline of Approved Subdivisions (as of 10/1/86) (#1)		Ceiling Adopted For Use In FY 87 (Based On FY 87-92 Adopted CIP) ²		Capacity Remaining Under FY 87 Adopted Ceiling (as of 10/1/86) (#3, 4) (B-A)		Ceiling For Use in FY 88 Under High Scenario for FY 88-93 CIP (#5)		Capacity Remaining Under FY 88 High Scenario Ceiling (as of 10/1/86) (D-A)		Potential Additional Capacity From Short-Term Traffic Alleviation Measures (#6)	
	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU	JOBS	HU
Potomac (#7)	1,897	2,864	3,371	3,925	1,474	1,061	3,371	3,925	1,474	1,061	0	0
Darnestown/Travilah (#7)												
Poolesville (#7)												
Goshen (#7)												
Damascus	161	1,055	(1,385)	(565)	(1,546)	(1,620)	(1,385)	(565)	(1,546)	(1,620)	0	0
Clarksburg (#7)												
Germantown East	5,554	1,514	3,744	(713)	(1,810)	(2,227)	5,744	1,287	190	(227)	25	75
Germantown West	6,090	8,089	906	(1,647)	(5,184)	(9,736)	7,906	4,353	1,816	(3,736)	25	100
Gaithersburg East	18,857	8,339	14,988	10,739	(3,869)	2,400	18,488	11,739	(369)	3,400	75	50
Gaithersburg West (#8)	16,427	6,164	18,465	6,188	2,038	24	22,965	8,188	6,538	2,024	25	25
Rockville (#7)												
North Bethesda	15,818	2,437	14,499	2,940	(1,319)	503	20,499	4,440	4,681	2,003	275	75
Bethesda (#9)	18,991	894	19,906	4,083	915	3,189	19,906	4,083	915	3,189	500	125
Silver Spring/Takoma Park	14,443	301	17,037	2,127	2,594	1,826	17,037	2,127	2,594	1,826	450	50
Kensington/Wheaton	6,037	5,289	12,208	6,194	6,171	365	12,208	6,694	6,171	865	0	50
Rock Creek (#7)												
Olney	1,240	3,177	1,687	3,900	447	723	2,187	4,400	947	1,223	0	0
Patuxent (#7)												
Cloverly	188	1,514	693	(290)	505	(1,804)	693	(290)	505	(1,804)	0	0
Fairland/White Oak	11,373	8,181	6,428	5,603	(4,945)	(2,578)	8,428	7,103	(2,945)	(1,078)	100	300
TOTAL CAPACITY FOR NEW SUBDIVISIONS	117,076	50,358	113,932	45,699	14,144	10,091	139,432	58,339	25,831	15,591	1,475	850

- Pipeline of approved subdivisions as of October 1, 1986.
- These numbers indicate the amount by which the adopted FY 87 Staging Ceiling exceeds the level of existing development as of January 1, 1986. Negative numbers indicate the amount by which existing development as of January 1, 1986, exceeds the adopted FY 87 ceiling. These are treated as zero ceilings for the purpose of calculating total capacity.
- Capacity remaining after pipeline is subtracted from adopted FY 87 Staging Ceiling. These numbers may change every week as new subdivisions are approved by the Planning Board and are added to the pipeline.
- Negative numbers indicate the amount by which existing plus approved development (i.e., pipeline) exceeds the cumulative capacity of the ceiling identified in the heading of the column. Negative numbers are treated as zero ceilings for the purpose of calculating total capacity for new subdivisions.
- Available capacity with the advancement of the fifth and six year of the FY 87-92 CIP to the fourth year of FY 88-93 CIP. Also advances the fifth year of MDDOT FY 86-91 CIP and additional projects that could be added to the fourth year of their FY 87-92 CIP as a result of potential revenue increases in Spring 1987.
- Available capacity with addition of short-term alleviation measures, for the set of measures adopted by the Council on September 30, 1986, for implementation in FY 87 and FY 88. These numbers reflect only those measures which have had specific budget appropriations and similar actions being done through developer participation agreements required at the time of approval of several preliminary plans. Those numbers reflect 50% of the estimated reduction obtained from these measures.
- Staging ceilings are not used for these Policy Areas.
- Preliminary plans within the Shady Grove West area will be subject to the conditions placed upon them in the Gaithersburg Master Plan.
- The Bethesda CBD Sector Plan supersedes the threshold established for the Bethesda Policy Area.

in view, and presenting to the Planning Board, the amount of capacity still available under the adopted ceiling at any given time. When the subdivision pipeline has risen to meet the ceiling, no more subdivisions shall be approved by the Planning Board in that policy area, except under certain special circumstances, which are outlined below.

In addition to the use of this Policy Area Review method, a Local Area Review method also shall be required for all subdivisions which, if approved, will exceed 50 peak hour automobile trips, and are located near a congested intersection, or in a policy area where the total approved development is approaching the policy area ceiling. For the purposes of this Local Area Review, the definition of a programmed transportation project shall be one which has been included in the most recent edition of the County Executive's Approved Two-Year Road Program. The Planning Board shall adopt, and amend as appropriate, guidelines for the administration of this Local Area Review which are consistent with these provisions. The current Board guidelines are included in the Appendix for information.

Water and Sewerage Facilities

In accordance with the language of the Adequate Public Facilities Ordinance itself, both for policy areas with a staging ceiling and in those without one, applications will be considered adequately served by water and sewerage, if the subdivision is located in an area in which water and sewer service is presently available, or is under construction, or is designated by the County Council for extension of service within the first two years of a current approved Ten-Year Water and Sewerage Plan, or, if the applicant either provides a community water and/or sewerage system, or meets health requirements for septic and/or well system, as outlined in the Adequate Public Facilities Ordinance. These requirements are determined either by reference to the Ten-Year Water and Sewerage Plan, adopted by the Council, or by obtaining a satisfactory percolation test from the County Health Department. Applications will only be accepted for further planning staff and Board consideration, if they present evidence of meeting the appropriate requirements.

School Facilities

Policy Areas for measuring school facility capacity are defined as co-terminous with the Board of Education's High School Cluster Areas. (See Map 2.) School capacity within each area is established for each of the three grade levels, (Elementary, Junior, Intermediate or Middle, and Senior High School), using the Current Educational Program Capacity (see Definitions section of Appendix) adopted by the Board of Education, as applied to all of the facilities scheduled to be complete and in operation by the end of the fourth year of the adopted CIP.

Although the four year time frame used for the definition of a programmed school facility is the same as was used to define a



Table 2-A
ELEMENTARY SCHOOLS LOW SCENARIO (100%)

Comparison of 1991 MCPS Elementary School Enrollment Projections
with Adopted and MCPS Requested FY 91 CIP Capacity at 100%¹
(In Students)

	A	B	C	D	E
		Status Quo Ceiling	1991 Capacity	Ceiling For Use In FY 88 Under Low Scenario	1991 Capacity
	September 1991 Enrollment	For Use In FY 88	Remaining Under Status Quo	For FY 88-91 (i.e., 100% MCPS Capacity)	Remaining Under FY 88 Low Scenario
School Policy Areas (High School Clusters)	Projected by MCPS (as of 10/86)	If No Changes Made In Adopted FY 87-91 CIP	Ceiling (B - A)		Ceiling (D - A)
Montgomery Blair	4,788	4,852	64	5,127	339
Albert Einstein	2,858	2,610	(248)	2,610	(248)
John F. Kennedy ²	2,804	2,429	(375)	2,429	(375)
Paint Branch ²	3,101	2,073	(1,028)	2,985	(116)
Sherwood ²	2,397	1,949	(448)	1,949	(448)
Springbrook ²	3,480	2,886	(594)	3,399	(81)
Wheaton	<u>2,503</u>	<u>2,610</u>	<u>107</u>	<u>2,610</u>	<u>107</u>
Subtotal	21,931	19,409	(2,522)	21,109	(822)
Bethesda/Chevy Chase	2,469	2,706	237	2,879	410
Winston Churchill	2,471	2,532	61	2,532	61
Walter Johnson/Woodward ³	3,032	2,762	(270)	2,987	(45)
Richard Montgomery	1,929	1,769	(160)	1,769	(160)
Rockville ²	2,370	2,794	424	2,794	424
Walt Whitman	<u>2,119</u>	<u>2,053</u>	<u>(66)</u>	<u>2,053</u>	<u>(66)</u>
Subtotal	14,390	14,616	226	15,014	624
Damascus	2,819	2,642	(177)	2,642	(177)
Gaithersburg ²	8,108	7,364	(744)	8,872	764
Col. Zadok Magruder ²	2,110	1,629	(481)	1,629	(481)
Poolesville	946	858	(88)	858	(88)
Seneca Valley ²	7,483	7,425	(58)	7,447	(36)
Thomas S. Wootton ²	<u>3,494</u>	<u>3,065</u>	<u>(429)</u>	<u>3,065</u>	<u>(429)</u>
Subtotal	24,960	22,983	(1,977)	24,513	(447)
	=====	=====	=====	=====	=====
Total County	61,281	57,008	(4,273)	60,636	(645)

¹ 100% capacity is defined as the student capacity in the FY 91 CIP recommended by MCPS as of November 21, 1986 and the student per classroom policy adopted by the Montgomery County School Board on September 10, 1986, (i.e., 25 students per classroom etc.) The assignment of new school capacity to high school clusters is summarized in the Appendix.

² Boundaries may be affected as part of the Quince Orchard High School boundary planning process. Final boundary decision expected November 1987.

³ Woodward scheduled for consolidation with Walter Johnson in September 1987.

Source: Montgomery County Public Schools, Educational Facilities Planning & Development, the Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, and the Research Division, Montgomery County Planning Department.

Table 2-B
ELEMENTARY SCHOOLS HIGH SCENARIO (110%)

Comparison of 1991 MCPS Elementary School Enrollment Projections
with Adopted and MCPS Requested FY 91 CIP Capacity at 110%¹
(In Students)

	A	B	C	D	E
	September 1991 Enrollment Projected by MCPS (as of 10/86)	Status Quo Ceiling For Use In FY 88 If No Changes Made In Adopted FY 87-91 CIP	1991 Capacity Remaining Under Status Quo Ceiling (B - A)	Ceiling For Use In FY 88 Under High Scenario For FY 88-91 (i.e., 110% MCPS Capacity)	1991 Capacity Remaining Under FY 88 High Scenario Ceiling (D - A)
School Policy Areas (High School Clusters)					
Montgomery Blair	4,788	5,337	549	5,640	852
Albert Einstein	2,858	2,871	13	2,871	13
John F. Kennedy ²	2,804	2,672	(132)	2,672	(132)
Paint Branch ²	3,101	2,280	(821)	3,284	183
Sherwood ²	2,397	2,144	(253)	2,144	(253)
Springbrook ²	3,480	3,175	(305)	3,739	259
Wheaton	<u>2,503</u>	<u>2,871</u>	<u>368</u>	<u>2,871</u>	<u>368</u>
Subtotal	21,931	21,350	(581)	23,221	1,290
Bethesda/Chevy Chase	2,469	2,977	508	3,167	698
Winston Churchill	2,471	2,785	314	2,785	314
Walter Johnson/Woodward ³	3,032	3,038	6	3,286	254
Richard Montgomery	1,929	1,946	17	1,946	17
Rockville ²	2,370	3,073	703	3,073	703
Walt Whitman	<u>2,119</u>	<u>2,258</u>	<u>139</u>	<u>2,258</u>	<u>139</u>
Subtotal	14,390	16,077	1,687	16,515	2,125
Damascus	2,819	2,906	87	2,906	87
Gaithersburg ²	8,108	8,100	(8)	9,759	1,651
Col. Zadok Magruder ²	2,110	1,792	(318)	1,792	(318)
Poolesville	946	944	(2)	944	(2)
Seneca Valley ²	7,483	8,168	685	8,192	709
Thomas S. Wootton ²	<u>3,494</u>	<u>3,370</u>	<u>(124)</u>	<u>3,370</u>	<u>(124)</u>
Subtotal	24,960	25,280	320	26,963	2,003
	=====	=====	=====	=====	=====
Total County	61,281	62,707	1,426	66,699	5,418

¹ 110% capacity is defined as 110% of the student capacity in the FY 91 CIP recommended by MCPS as of November 21, 1986 and the student per classroom policy adopted by the Montgomery County School Board on September 10, 1986, (i.e., 25 students per classroom etc.) The assignment of new school capacity to high school clusters is summarized in the Appendix.

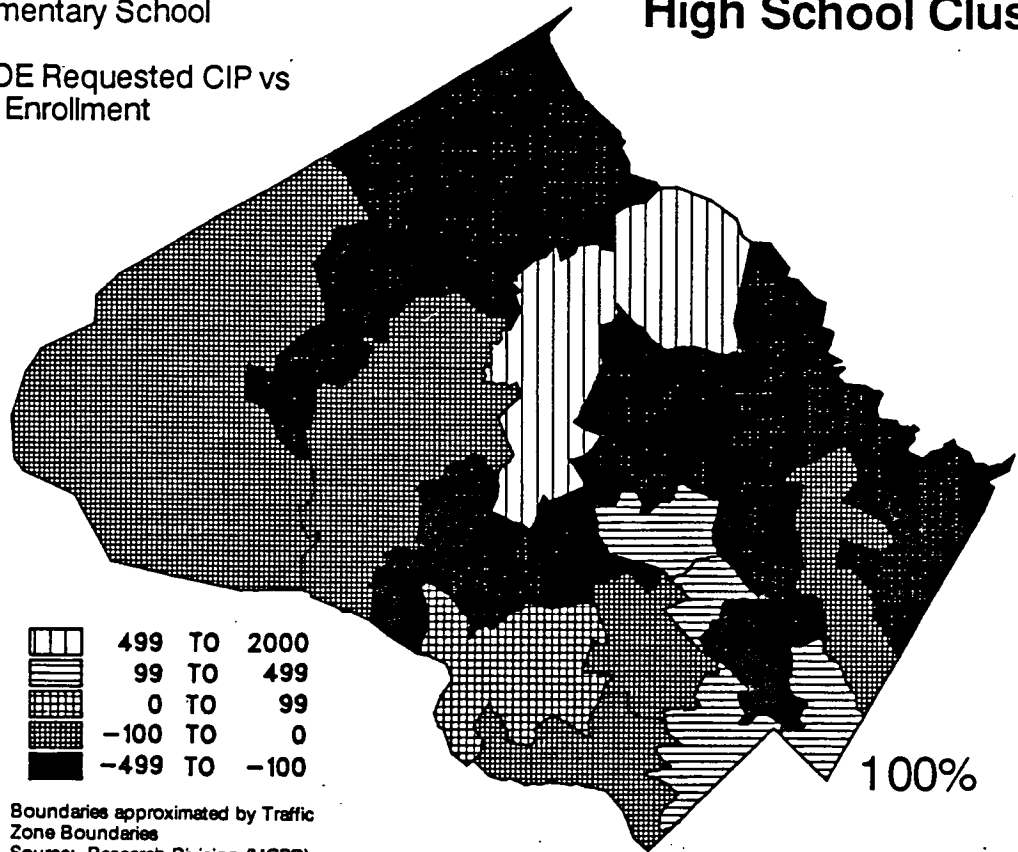
² Boundaries may be affected as part of the Quince Orchard High School boundary planning process. Final boundary decision expected November 1987.

³ Woodward scheduled for consolidation with Walter Johnson in September 1987.

Source: Montgomery County Public Schools, Educational Facilities Planning & Development, the Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, and the Research Division, Montgomery County Planning Department.

Elementary Schools by High School Clusters

Remaining Elementary School Capacity
100% FY 91 BOE Requested CIP vs
September 91 Enrollment



Remaining Elementary School Capacity
110% FY 91 BOE Requested CIP vs
September 91 Enrollment

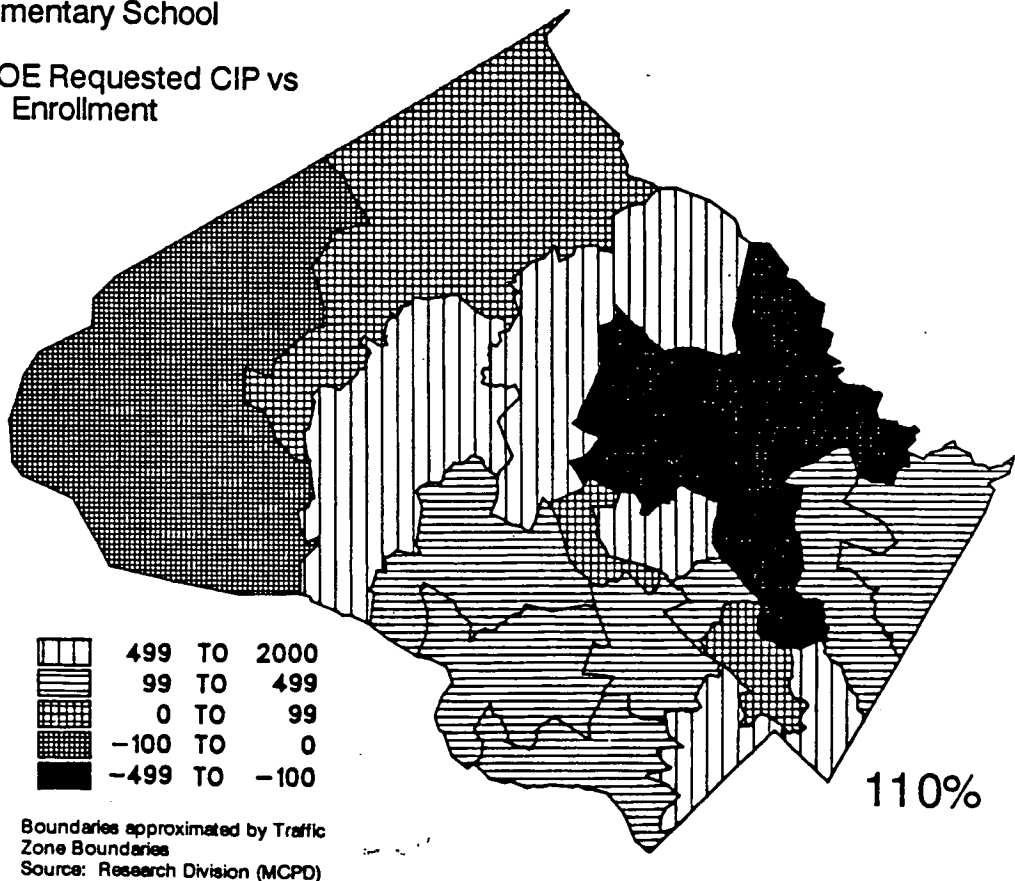


Table 3-A

JIM SCHOOLS LOW SCENARIO (100%)

Comparison of 1991 MCPS Junior, Intermediate, and Middle School (JIM) Enrollment
Projections with Adopted and MCPS Requested FY 91 CIP Capacity at 100%¹
(In Students)

	A	B	C	D	E
		Status Quo	1991	Ceiling For Use	1991
		Ceiling	Capacity	In FY 88 Under	Capacity
	September 1991	For Use In	Remaining	Low Scenario	Remaining
	Enrollment	FY 88	Under	For	Under FY 88
	Projected by	If No Changes	Status Quo	FY 88-91	Low Scenario
School Policy Areas	MCPS	Made In Adopted	Ceiling	(i.e., 100%	Ceiling
(High School Clusters)	(as of 10/86)	FY 87-91 CIP	(B - A)	MCPS Capacity) ²	(D - A)
Montgomery Blair	1,289	1,733	444	1,733	444
Albert Einstein	1,093	1,328	235	1,328	235
John F. Kennedy ³	726	819	93	819	93
Paint Branch ³	793	797	4	797	4
Sherwood ³	1,029	923	(106)	923	(106)
Springbrook ³	889	1,008	119	1,008	119
Wheaton	<u>595</u>	<u>1,152</u>	<u>557</u>	<u>1,152</u>	<u>557</u>
Subtotal	6,414	7,760	1,346	7,760	1,346
Bethesda/Chevy Chase	570	936	366	936	366
Winston Churchill	738	924	186	924	186
Walter Johnson/Woodward ⁴	666	833	167	833	167
Richard Montgomery	769	918	149	918	149
Rockville ³	522	1,004	482	1,004	482
Walt Whitman	<u>1,078</u>	<u>1,089</u>	<u>11</u>	<u>1,089</u>	<u>11</u>
Subtotal	4,343	5,704	1,361	5,704	1,361
Damascus	668	648	(20)	648	(20)
Gaithersburg ³	1,763	2,005	242	2,005	242
Col. Zadok Magruder ³	919	806	(113)	806	(113)
Poolesville ⁵	0	0	0	0	0
Seneca Valley ³	1,770	1,915	145	1,915	145
Thomas S. Wootton ³	<u>974</u>	<u>851</u>	<u>(123)</u>	<u>851</u>	<u>(123)</u>
Subtotal	6,094	6,225	131	6,225	131
	=====	=====	=====	=====	=====
Total County	16,851	19,689	2,838	19,689	2,838

¹ 100% capacity is defined as the student capacity in the FY 91 CIP recommended by MCPS as of November 21, 1986 and 90% of state rated capacity. Assignment of new school capacity to high school clusters is summarized in the Appendix.

² Requested FY 91 CIP capacity is the same as adopted FY 91 CIP capacity.

³ Boundaries may be affected as part of the Quince Orchard High School boundary planning process. Final boundary decision expected November 1987.

⁴ Woodward scheduled for consolidation with Walter Johnson in September 1987.

⁵ Poolesville's JIM and high school are one facility. See high school table for data.

Source: Montgomery County Public Schools, Educational Facilities Planning & Development, the Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, and the Research Division, Montgomery County Planning Department.

Table 3-B
JIM SCHOOLS HIGH SCENARIO (110%)

Comparison of 1991 MCPS Junior, Intermediate, and Middle School (JIM) Enrollment
Projections with Adopted and MCPS Requested FY 91 CIP Capacity at 110%¹
(In Students)

	A	B	C	D	E
	September 1991 Enrollment Projected by MCPS (as of 10/86)	Status Quo Ceiling For Use In FY 88 If No Changes Made In Adopted FY 87-91 CIP	1991 Capacity Remaining Under Status Quo Ceiling (B - A)	Ceiling For Use In FY 88 Under High Scenario For FY 88-91 (i.e., 110% MCPS Capacity) ²	1991 Capacity Remaining Under FY 88 High Scenario Ceiling (D - A)
School Policy Areas (High School Clusters)					
Montgomery Blair	1,289	1,906	617	1,906	617
Albert Einstein	1,093	1,460	367	1,460	367
John F. Kennedy ³	726	901	175	901	175
Paint Branch ³	793	876	83	876	83
Sherwood ³	1,029	1,016	(13)	1,016	(13)
Springbrook ³	889	1,109	220	1,109	220
Wheaton	<u>595</u>	<u>1,267</u>	<u>672</u>	<u>1,267</u>	<u>672</u>
Subtotal	6,414	8,535	2,121	8,535	2,121
Bethesda/Chevy Chase	570	1,030	460	1,030	460
Winston Churchill	738	1,017	279	1,017	279
Walter Johnson/Woodward ⁴	666	916	250	916	250
Richard Montgomery	769	1,010	241	1,010	241
Rockville ³	522	1,104	582	1,104	582
Walt Whitman	<u>1,078</u>	<u>1,198</u>	<u>120</u>	<u>1,198</u>	<u>120</u>
Subtotal	4,343	6,275	1,932	6,275	1,932
Damascus	668	713	45	713	45
Gaithersburg ³	1,763	2,206	443	2,206	443
Col. Zadok Magruder ³	919	886	(33)	886	(33)
Poolesville ⁵	0	0	0	0	0
Seneca Valley ³	1,770	2,107	337	2,107	337
Thomas S. Wootton ³	<u>974</u>	<u>936</u>	<u>(38)</u>	<u>936</u>	<u>(38)</u>
Subtotal	6,094	6,848	754	6,848	754
Total County	<u>16,851</u>	<u>21,658</u>	<u>4,807</u>	<u>21,658</u>	<u>4,807</u>

¹ 110% capacity is defined as the student capacity in the FY 91 recommended by MCPS as of November 21, 1986 and 99% of state rated capacity. Assignment of new school capacity to high school clusters is summarized in the Appendix.

² Requested FY 91 CIP capacity is the same as adopted FY 91 CIP capacity.

³ Boundaries may be affected as part of the Quince Orchard High School boundary planning process. Final boundary decision expected November 1987.

⁴ Woodward scheduled for consolidation with Walter Johnson in September 1987.

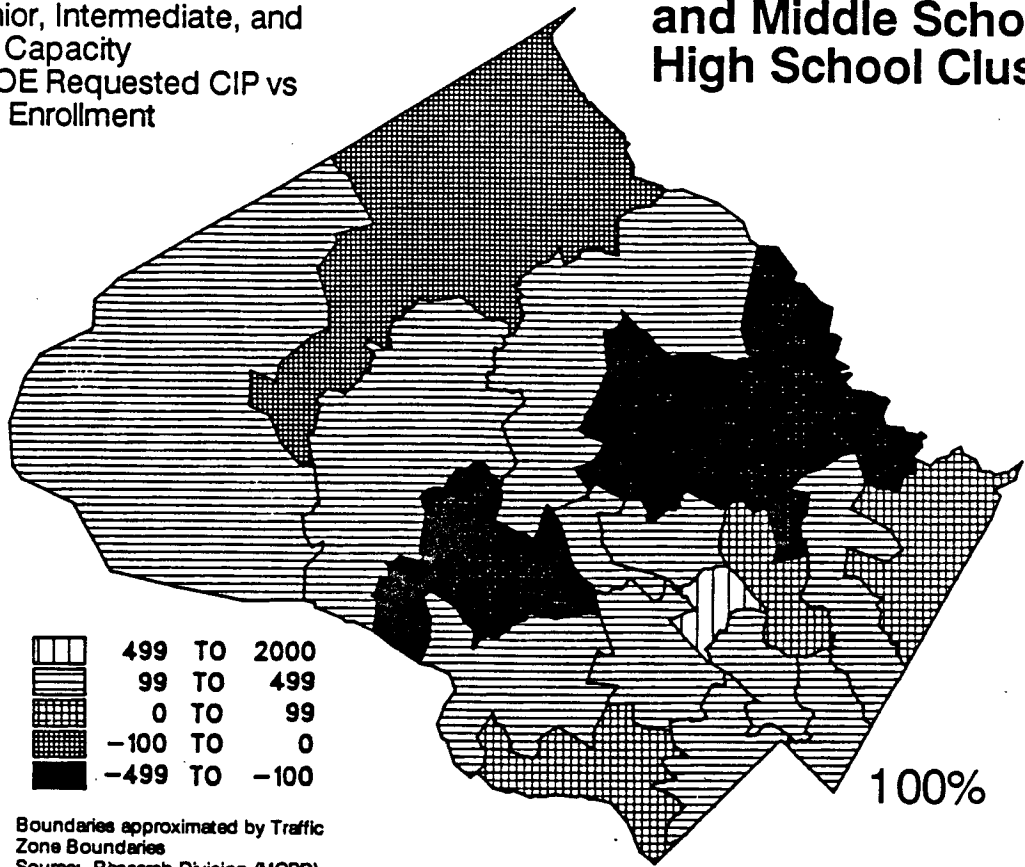
⁵ Poolesville's JIM and high school are one facility. See high school table for data.

Source: Montgomery County Public Schools, Educational Facilities Planning & Development, the Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, and the Research Division, Montgomery County Planning Department.

Map 4

Junior, Intermediate, and Middle Schools by High School Clusters

Remaining Junior, Intermediate, and
Middle School Capacity
100% FY 91 BOE Requested CIP vs
September 91 Enrollment



Remaining Junior, Intermediate, and
Middle School Capacity
110% FY 91 BOE Requested CIP vs
September 91 Enrollment

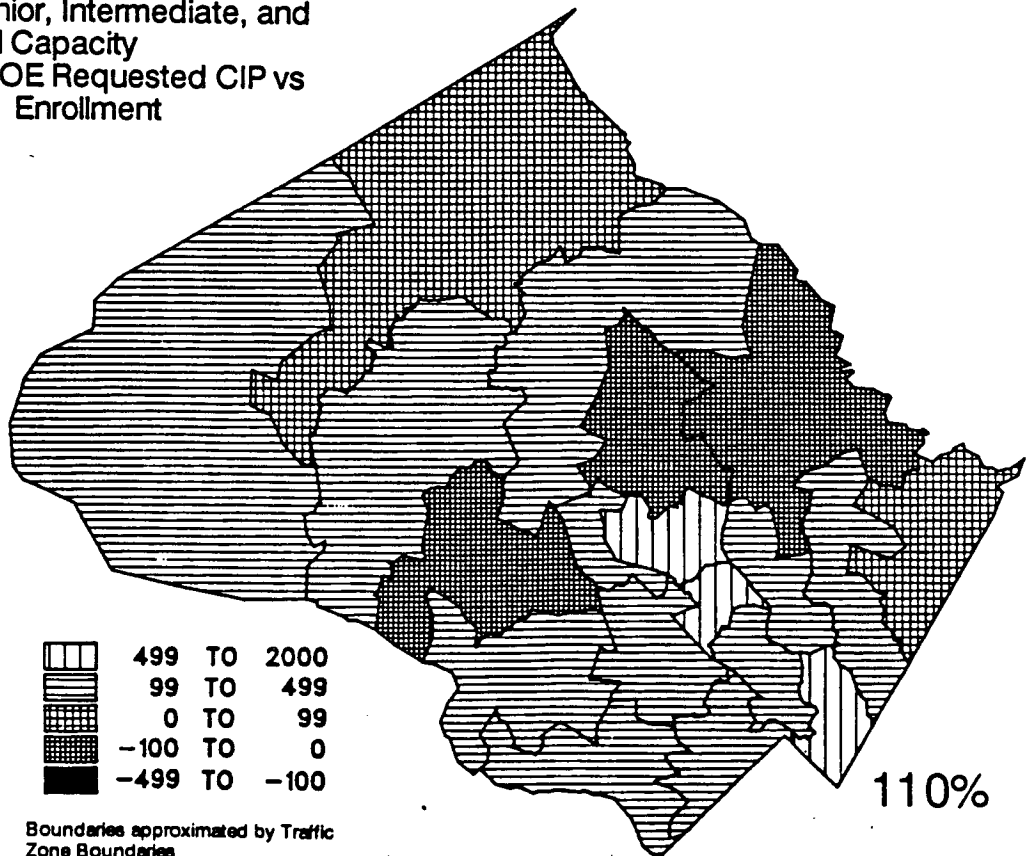


Table 4-A

HIGH SCHOOLS LOW SCENARIO (100%)

Comparison of 1991 MCPS High School Enrollment Projections
with Adopted and MCPS Requested FY 91 CIP Capacity at 100%¹
(In Students)

	A	B	C	D	E
	September 1991 Enrollment Projected by MCPS (as of 10/86)	Status Quo Ceiling For Use In FY 88 If No Changes Made In Adopted FY 87-91 CIP	1991 Capacity Remaining Under Status Quo Ceiling (B - A)	Ceiling For Use In FY 88 Under Low Scenario For FY 88-91 (i.e., 100% MCPS Capacity) ²	1991 Capacity Remaining Under FY 88 Low Scenario Ceiling (D - A)
School Policy Areas (High School Clusters)					
Montgomery Blair	2,236	2,183	(53)	2,183	(53)
Albert Einstein	1,342	1,658	316	1,658	316
John F. Kennedy ³	1,217	1,350	133	1,350	133
Paint Branch ³	1,500	1,602	102	1,602	102
Sherwood ³	1,221	1,261	40	1,261	40
Springbrook ³	1,739	1,593	(146)	1,593	(146)
Wheaton	<u>1,262</u>	<u>1,260</u>	<u>(2)</u>	<u>1,260</u>	<u>(2)</u>
Subtotal	10,517	10,907	390	10,907	390
Bethesda/Chevy Chase	1,295	1,571	276	1,571	276
Winston Churchill	1,626	1,574	(52)	1,574	(52)
Walter Johnson/Woodward ⁴	1,392	1,634	242	1,634	242
Richard Montgomery	1,346	1,539	193	1,539	193
Rockville ³	1,036	1,359	323	1,359	323
Walt Whitman	<u>1,470</u>	<u>1,818</u>	<u>348</u>	<u>1,818</u>	<u>348</u>
Subtotal	8,165	9,495	1,330	9,495	1,330
Damascus	1,140	1,126	(14)	1,126	(14)
Gaithersburg ³	2,753	3,438	685	3,438	685
Col. Zadok Magruder ³	1,294	1,407	113	1,407	113
Poolesville ⁵	545	846	301	846	301
Seneca Valley ³	3,027	3,167	140	3,167	140
Thomas S. Wootton ³	<u>2,009</u>	<u>1,575</u>	<u>(434)</u>	<u>1,575</u>	<u>(434)</u>
Subtotal	10,768	11,559	791	11,559	791
	=====	=====	=====	=====	=====
Total County	29,450	31,961	2,511	31,961	2,511

¹ 100% capacity is defined as the student capacity in the FY 91 CIP recommended by MCPS as of November 21, 1986 and 90% of state rated capacity. Assignment of new school capacity to high school clusters is summarized in the Appendix.

² Requested FY 91 CIP capacity is the same as adopted FY 91 CIP capacity.

³ Boundaries may be affected as part of the Quince Orchard High School boundary planning process. Final boundary decision expected November 1987.

⁴ Woodward scheduled for consolidation with Walter Johnson in September 1987.

⁵ Poolesville's JIM and high school are one facility. See high school table for data.

Source: Montgomery County Public Schools, Educational Facilities Planning & Development, the Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, and the Research Division, Montgomery County Planning Department.

Table 4-B
HIGH SCHOOLS HIGH SCENARIO (110%)

Comparison of 1991 MCPS High School Enrollment Projections
with Adopted and MCPS Requested FY 91 CIP Capacity at 110%¹
(In Students)

	A	B	C	D	E
		Status Quo	1991	Ceiling For Use	1991
		Ceiling	Capacity	In FY 88 Under	Capacity
	September 1991	For Use In	Remaining	High Scenario	Remaining
	Enrollment	FY 88	Under	For	Under FY 88
	Projected by	If No Changes	Status Quo	FY 88-91	High Scenario
School Policy Areas	MCPS	Made In Adopted	Ceiling	(i.e., 110%	Ceiling
(High School Clusters)	(as of 10/86)	FY 87-91 CIP	(B - A)	MCPS Capacity) ²	(D - A)
Montgomery Blair	2,236	2,401	165	2,401	165
Albert Einstein	1,342	1,824	482	1,824	482
John F. Kennedy ³	1,217	1,485	268	1,485	268
Paint Branch ³	1,500	1,762	262	1,762	262
Sherwood ³	1,221	1,387	166	1,387	166
Springbrook ³	1,739	1,752	13	1,752	13
Wheaton	<u>1,262</u>	<u>1,386</u>	<u>124</u>	<u>1,386</u>	<u>124</u>
Subtotal	10,517	11,997	1,480	11,997	1,480
Bethesda/Chevy Chase	1,295	1,728	433	1,728	433
Winston Churchill	1,626	1,732	106	1,732	106
Walter Johnson/Woodward ⁴	1,392	1,797	405	1,797	405
Richard Montgomery	1,346	1,693	347	1,693	347
Rockville ³	1,036	1,495	459	1,495	459
Walt Whitman	<u>1,470</u>	<u>2,000</u>	<u>530</u>	<u>2,000</u>	<u>530</u>
Subtotal	8,165	10,445	2,280	10,445	2,280
Damascus	1,140	1,238	98	1,238	98
Gaithersburg ³	2,753	3,782	1,029	3,782	1,029
Col. Zadok Magruder ³	1,294	1,547	253	1,547	253
Poolesville ⁵	545	931	386	931	386
Seneca Valley ³	3,027	3,484	457	3,484	457
Thomas S. Wootton ³	<u>2,009</u>	<u>1,733</u>	<u>(276)</u>	<u>1,733</u>	<u>(276)</u>
Subtotal	10,768	12,715	1,947	12,715	1,947
	=====	=====	=====	=====	=====
Total County	29,450	35,157	5,707	35,157	5,707

¹ 110% capacity is defined as the student capacity in the FY 91 recommended by MCPS as of November 21, 1986 and 99% of state rated capacity. Assignment of new school capacity to high school clusters is summarized in the Appendix.

² Requested FY 91 CIP capacity is the same as adopted FY 91 CIP capacity.

³ Boundaries may be affected as part of the Quince Orchard High School boundary planning process. Final boundary decision expected November 1987.

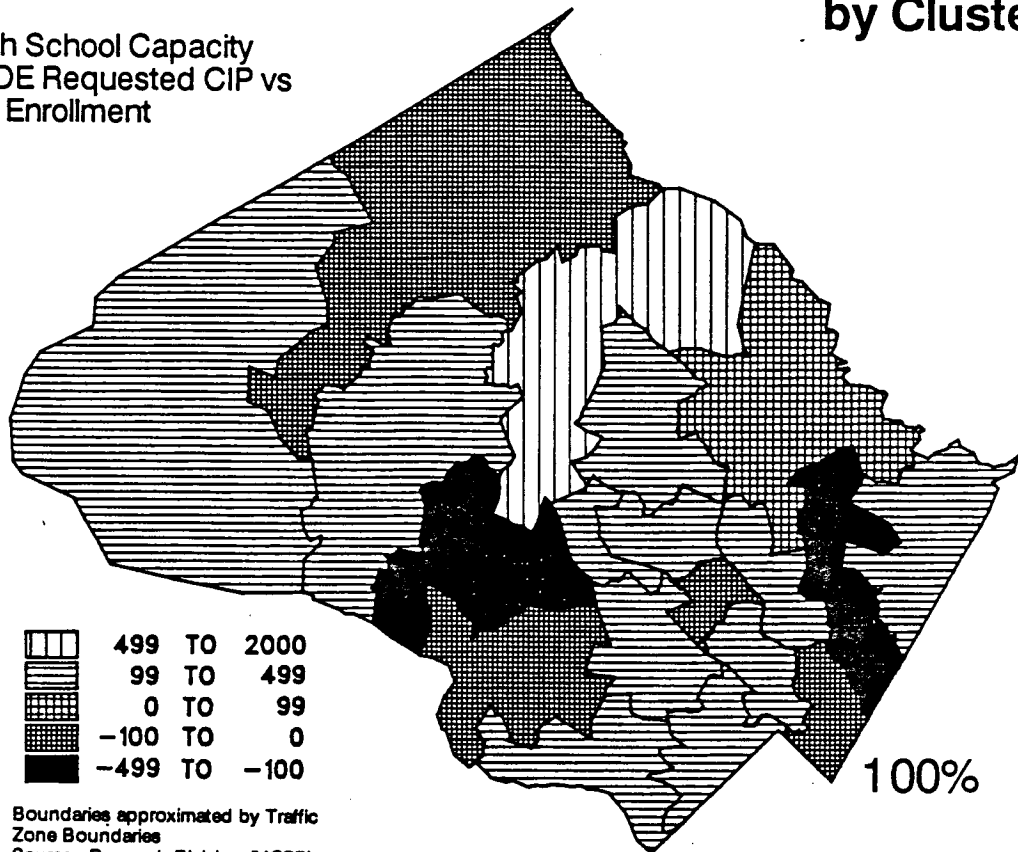
⁴ Woodward scheduled for consolidation with Walter Johnson in September 1987.

⁵ Poolesville's JIM and high school are one facility. See high school table for data.

Source: Montgomery County Public Schools, Educational Facilities Planning & Development, the Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, and the Research Division, Montgomery County Planning Department.

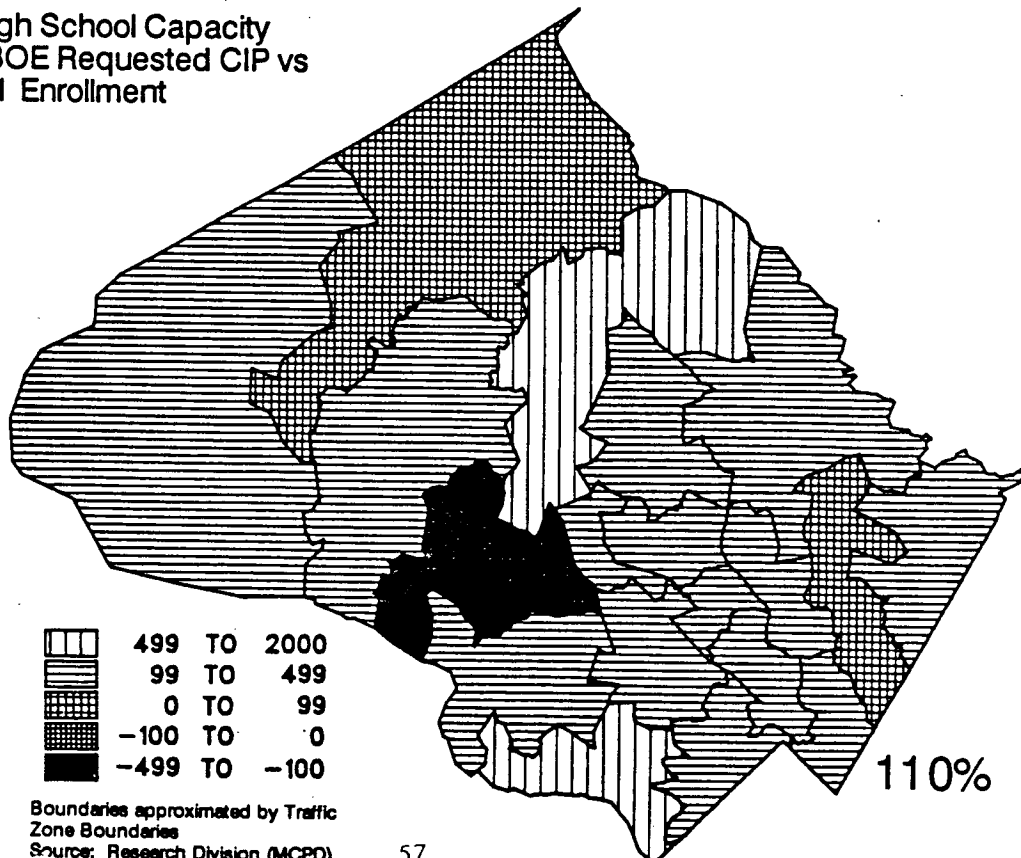
High School by Clusters

Remaining High School Capacity
100% FY 91 BOE Requested CIP vs
September 91 Enrollment



100%

Remaining High School Capacity
110% FY 91 BOE Requested CIP vs
September 91 Enrollment



110%

programmed transportation facility, the method of applying the resultant subdivision ceiling is different. In the case of schools, the capacity ceiling is expressed in terms of public school students, rather than being converted to dwelling units, and the ceiling is compared to the Board of Education's adopted enrollment forecast for the September immediately following the June end of the fourth fiscal year of the adopted CIP. If the adopted enrollment forecast for this date exceeds the total capacity of all the schools within the policy area, considered separately by grade cluster (i.e., elementary, junior-intermediate-middle, and senior high), then the policy area shall be closed to further subdivision approvals, with exceptions as noted below, until such time as the ceiling capacity is increased by a subsequent amendment of this AGP by the County Council.

Tables 2, 3, and 4* show the status of the policy areas for FY 88, for each of the grade clusters. In any policy area which shows a deficit number for capacity remaining in 1991 (i.e., Column E), no further subdivisions shall be approved, unless the applicant can demonstrate that his subdivision will not generate any public school students in the grade cluster which shows a deficit condition for 1991. Maps 3, 4, and 5* show the capacity condition for 1991 of each of the school policy areas.

Police, Fire, and Health Services

If an application does not generate development such as to exceed a staging ceiling, or if it is located in a policy area where no staging ceiling has been designated, the Planning Board and staff will consider the programmed services to be adequate for facilities such as police stations, firehouses, and health clinics, unless there is evidence to believe that a local area problem will be generated. Such a problem is one which cannot be overcome within the context of the adopted Capital Improvements Program and Operating Budgets of the relevant agencies. Where such evidence exists, either through agency response to the Subdivision Review Committee clearinghouse, or through public commentary or Planning staff consideration, a Local Area Review shall be undertaken. Such review shall seek a written opinion from the relevant agency, and will require, if necessary, additional data from the applicant, to facilitate the completion of the planning staff recommendation within the statutory time frame for Planning Board action. In performing this Local Area Review,

* The attached maps and tables show two alternative capacity definitions, one based on accepting the Board of Education's recommendation to use 100 percent of its adopted program capacity, and another based on using 110 percent of this figure, an additional allowance which possibly could be made for potential flexibility within the countywide system. Planning staff will reconfigure these maps and tables to fit the County Executive's recommendation on this policy, if requested.

the facility capacity at the end of the sixth year of the adopted CIP shall be compared to the demand generated by the "most probable" forecast for the same year prepared by the Montgomery County Planning Department.

Staging Ceiling Flexibility

In some cases it may be in the public interest for the Executive, Board of Education, or Planning Staff, to recommend, and/or for the Planning Board to grant, approval to a preliminary plan application which exceeds the staging ceiling. Caution should be exercised in allowing the staging ceiling to be exceeded.

In general, such approval above the staging ceiling shall be conditioned upon the planned and scheduled construction, by either the applicant and/or the government, of some public facility projects, or other appropriate capacity measures, (such as the private operation of a transit program) which, if added to the approved CIP or the CTP as a programmed facility, will add capacity or its equivalent, to the existing facility system, and result in improving the areawide level of service. The capacity addition must be scheduled for completion at the same time or before the proposed development is to be completed.

The nature, design and scale of the additional project or program will need to receive prior approval from the relevant governmental agency responsible for constructing and maintaining such facilities or programs. The recommendation of the Executive also will be evaluated carefully. In cases where the applicant agrees to pay for all necessary facilities, and the relevant administering agency has agreed, there normally will be no other constraint, provided that the project is in accordance with an adopted master plan and zoning map, or other relevant policy statement.

Where the applicant commits to provide a transit, para-transit, or ridesharing program, such applicant may be deemed to have passed the staging ceiling test, insofar as transportation is concerned, if the Board finds, after reviewing the recommendations of the County Executive, that the program will reduce the number of peak-hour, peak-direction automobile trips by at least as many trips as would be generated by the proposed development. After a preliminary plan has been approved on this basis, later applicants may be credited for reduced trips only to the extent that the new proposal will provide additional reductions sufficient to accommodate all the trips generated by the new proposal.

The approval of preliminary plans which add only a few vehicle trips will be considered on a case-by-case basis by the Planning Board. In general, all contiguous land within the County, whose zoning permits 10 or fewer trips in total, may receive approval of up to 5 trips over the staging ceiling. The term "all land at one location within the County" means all land that would be included in a determination of whether a project is

a "Significantly Sized Project" under the Planning Board's guidelines for Local Area Transportation Review outlined in the Appendix.

Policy Areas Without Assigned Ceilings

In those transportation policy areas which have not been assigned a specific transportation ceiling figure, applications will be reviewed under a transportation standard of not exceeding level of service D at the nearest critical intersection, as per Section 4 of the Planning Board's Local Area Transportation Review Guidelines.

Amendment of Policy Ceilings

From time to time, these staging ceilings may be amended by the Montgomery County Council, after public hearing, to reflect changing conditions such as additions to the Capital Improvements Programs, changing patterns of public facility usage, and revised levels of public service, and other relevant criteria.

General Application and Review Procedures

Within the statutory guidelines for processing preliminary subdivision plans, the following process will be followed. Prior to filing a preliminary plan a developer may approach the Planning Department staff to discuss issues related to his application. When possible, problems are to be discussed, and the agencies that could be of help are to be identified. For example, if there is no remaining capacity available under the transportation staging ceiling in a policy area, the Planning staff will suggest that the developer approach the Executive Branch (Department of Transportation) to try to work out a solution to resolve the problem.

Once a specific proposal has been developed to address the problems that have been identified, the developer will formally submit an application for a preliminary plan. There are a number of items that must be submitted by an applicant before an application will be considered as complete. One of the elements that must be included is a traffic "statement," even in the case of a very small development. By completing the traffic statement, the developer can determine if a formal traffic analysis will be required. If a traffic analysis is required, it also must be submitted before an application for a preliminary plan will be considered complete.

Approximately three weeks after an application is filed it will be scheduled for a meeting of the Subdivision Review Committee. Appropriate staff from all relevant agencies are expected to attend this meeting, which occurs on a weekly basis and is chaired by the Planning Staff. At this meeting, it will be determined by Planning staff whether the application meets all the requirements of the ordinance, in terms of completeness.

During the period between the formal application date and this Subdivision Review Committee meeting, the Planning Staff will review the traffic statement (or traffic analysis if required) to determine if it is complete. If it is complete, copies of the traffic analysis will be given to the Montgomery County Department of Transportation, as well as the Maryland Department of Transportation if relevant. If the traffic analysis or statement is not complete, defects will be identified to the developer, so that the developer may complete the report. The applicant will then submit an updated traffic analysis, whenever he is ready. This second report will be reviewed again for completeness by the Planning Staff, within about one week after it is submitted, and then passed on to the MCDOT and MdDOT at the next Subdivision Review Committee.

After the applicant's traffic analysis is determined to be complete, and a copy has been given to the MCDOT and MdDOT, a more detailed review will be done by the Transportation staff of the Planning Department as well as by MCDOT and MdDOT. If a local area review problem is identified, the Planning staff will notify the applicant and MCDOT of the problem. Once the developer and MCDOT have developed a solution to the problem, this will be submitted to the Planning staff, so that a Planning staff report and recommendation can be prepared for consideration by the Planning Board.

For administrative purposes it is necessary to establish a date on which to fix the size of the pipeline of previously approved preliminary plans, in order that this pipeline can be subtracted from the adopted staging ceiling, and the appropriate net amount of remaining capacity thereby established. This date shall be established according to Rules of Procedure adopted by the Planning Staff or Board. The pipeline figure as of that date (i.e. the development possible from all previously approved preliminary plans which have not yet been built) shall be subtracted from the adopted transportation staging ceiling to determine the remaining capacity. The following are the three basic situations that could result:

1. Transportation staging ceiling minus pipeline equals a negative number.

This means that there is no staging ceiling available, and that staff would recommend disapproval of the plan if it were taken to the Planning Board (unless the applicant, working with the County Executive, proposes an improvement to create additional capacity - see Staging Ceiling Flexibility). In cases where no staging ceiling capacity is available, a waiting list of preliminary plans will be established. Once additional staging ceiling capacity becomes available, the applicants on the waiting list will have the proposed development placed on a regular Planning Board Agenda for action by the Board in the order of their application dates.

2. Transportation staging ceiling minus pipeline equals a positive number, and there is a waiting list that was previously established during a period of no staging ceiling capacity.

In this case, the new application would be placed at the end of the waiting list.

3. Transportation staging ceiling minus pipeline equals a positive number, and there is no waiting list.

In this case, the positive staging ceiling number is the amount of staging ceiling capacity available for the new application. If the new application requests more than the available staging ceiling, it will be partially approved, and the remainder will be first in line on a waiting list. Plans that were previously partially approved under old guidelines are on a waiting list under these new guidelines. In all cases, plans approvable on the basis of threshold capacity will still be subject to Local Area Transportation Review.

The Gaithersburg Vicinity Master Plan mandates a special procedure for the treatment of property lying within the Shady Grove West area. Approvals will be additionally limited by the staging elements in that Plan and recordation of newly approved preliminary plans will be permitted only when the necessary facilities have obtained signed contracts for construction.

**THE
CAPITAL
IMPROVEMENTS
PROGRAM**

THE CAPITAL IMPROVEMENTS PROGRAM

Introduction and Summary

The Montgomery County Charter requires the County Executive to submit to the County Council by January 1 of each year, a comprehensive six-year program for capital improvements (CIP, and by March 1 of each year, comprehensive six-year programs for public services and fiscal policy.

The Charter states that the CIP shall include a statement of the objectives of capital programs and the relationship of capital programs to the County's long-range development plans; shall recommend capital projects and a construction schedule; and shall provide an estimate of costs, a statement of anticipated revenue sources, and an estimate of the impact of the program on County revenues and the operating budget. The capital improvements program shall, to the extent authorized by law, include all capital projects and programs of all agencies for which the County sets tax rates or approves budget or programs.

The preceding chapter has outlined a general policy with regard to public facilities, namely to avoid excessive congestion in the use of public facilities by: (1) limiting the amount of growth permissible under approved subdivisions, to a level that does not exceed the future ability of the County and state governments to program facilities to keep pace with it in real time; and (2) continuing to program facilities so that they do come on line in time to match the pace of market-driven growth, up to the ceilings established for subdivision approvals. As mentioned in the preceding chapter, the first objective relates to the APFO, and the second objective relates to the CIP.

Growth policy coordination has been achieved herein by basing the policy area ceilings, and related standards and criteria of the APFO guidelines, directly on the public facility program schedules contained in the adopted CIP for FY 88-93. These schedules can be seen in detail in the adopted CIP itself, but a summary version, for transportation and schools, has been included in this chapter for reference. (See Tables 5, 6, 7, and 8, and Maps 6, 7, 8, and 9).* To the extent that any policy area ceiling established herein will permit an ultimate total amount of development which exceeds the already programmed capacity of any public facility, it is intended that in future years the CIP shall add whatever additional facility capacity becomes necessary to serve this development, whenever it shall occur as a result of private sector market conditions.

*NOTE: These tables and maps for the FY 88-93 school CIP, and for the Planning Board's High and Low transportation CIP Scenarios will need to be replaced -- initially by the Executive's recommended CIP, and ultimately by the Council's adopted CIP.

Alternative Transportation Scenarios for Public Facility Growth and Related Staging Ceilings*

The Draft Annual Growth Policy (AGP) considers different transportation facility and service improvement alternatives. To keep track of the different alternatives considered in the report, a series of maps and lists of alternative transportation improvements have been prepared. This series of maps and lists is organized into three basic groupings: highway improvements, transit improvements, and traffic alleviation measures. A brief discussion follows identifying the different alternatives used in this report.

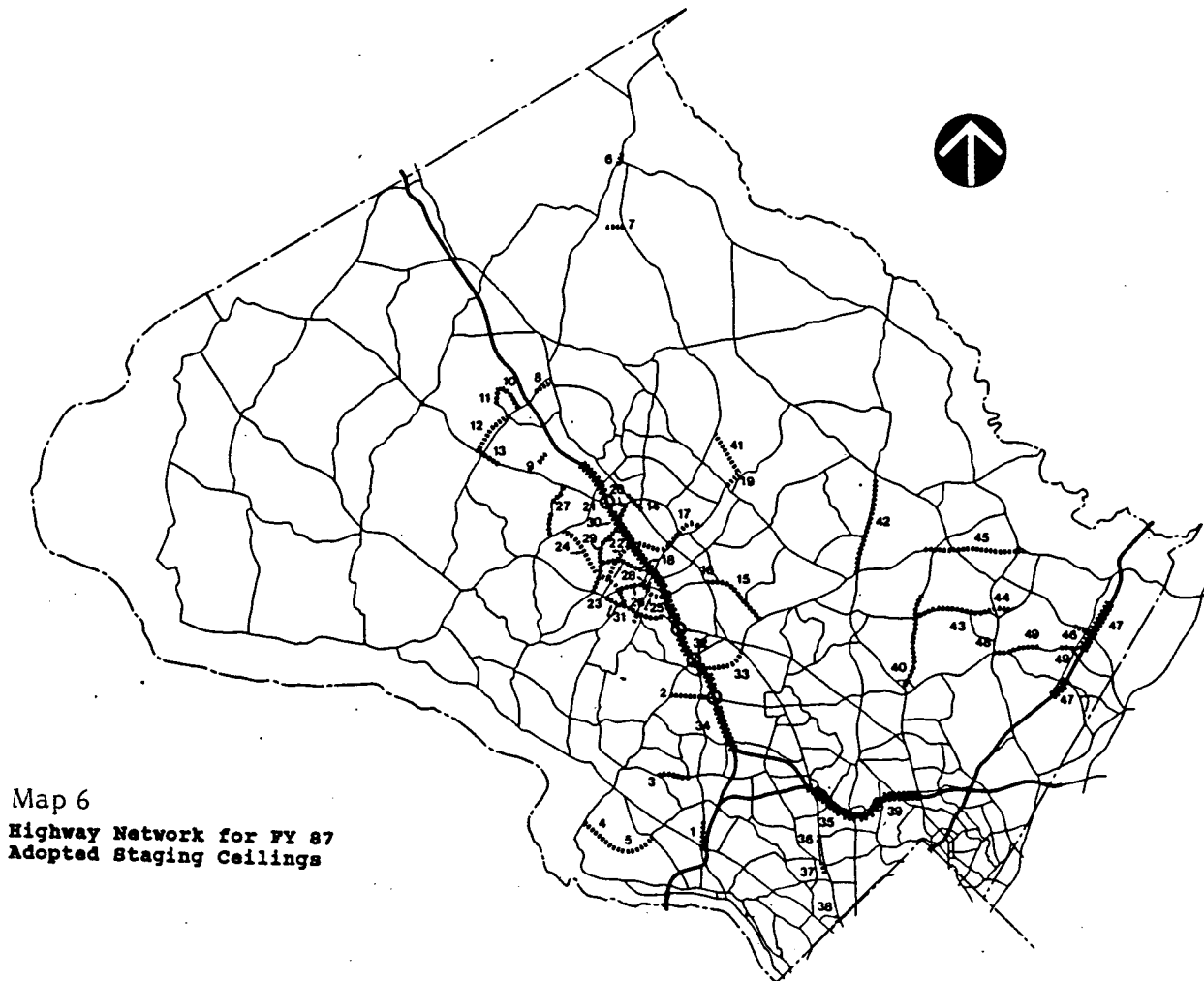
A) Highway Capital Improvements

There are three basic sets of alternative highway improvements used in this AGP. The first is shown in Table 5 and on the corresponding Reference Map 6. This is the set of projects upon which the adopted staging ceilings have been calculated. They show the highway projects which are 100 percent programmed for construction in the first four fiscal years in the Montgomery County FY 87-92 Capital Improvements Program (CIP) or the Maryland Department of Transportation FY 86-91 Consolidated Transportation Program (CTP). The list indicates the roadway projects within each policy area, which group is implementing each project, and the limits of each project. The Reference Map 5 shows that there is a high concentration of highway projects in the I-270 Corridor, particularly in the Gaithersburg West area.

Table 6 and Map 7 presents the set of road projects which have been used to develop the FY 88 low staging ceiling alternative. These projects generally represent those which are currently scheduled to be completed in the fifth fiscal year of the adopted FY 87-92 CIP or equivalent CTP. Under normal circumstances, they will be completed in the fourth fiscal year of the new CIP which will be adopted for FY 88-93. In addition, several projects have been added to this list. There are two highway projects which are new projects in the draft Maryland CTP, as well as two new projects in the City of Rockville CIP. This list also includes an added new project in the Gaithersburg West area for additional widenings of Key West Avenue between Great Seneca Highway and Gude Drive.

Table 7 and associated Reference Map 8 presents the set of road projects which have been used to develop the FY 88 High staging ceiling alternatives. For County projects in this list, these are a selected set of projects which are currently scheduled to be completed in the sixth year of the adopted CIP. For

*NOTE: The following text will need to be replaced, initially by text summarizing the Executive's recommended CIP, and ultimately by text describing the Council's Adopted CIP.



Map 6
Highway Network for FY 87
Adopted Staging Ceilings

Table 5 LIST OF HIGHWAY PROJECTS BY POLICY AREA WHICH ARE ONE HUNDRED PERCENT PROGRAMMED FOR CONSTRUCTION IN THE FIRST FOUR YEARS OF THE MONTGOMERY COUNTY FY 1987-92 CIP OR THE MCDOT FY 1986-91 CONSOLIDATED TRANSPORTATION PROGRAM

Policy Area	Roadway	State, County Developer or City	Limits
<u>POTOMAC</u>	1. Seven Locks Road Resurfacing and Realignment	County	MacArthur Boulevard to Lillystone Drive; River Road (MD 190) to Dwight Drive
	2. Montrose Road Extended	County	Seven Locks Road to I-270
	3. Democracy Boulevard Extended	County	Gainsborough Road to Kentsdale Drive
	4. Oaklyn Drive	County	Falls Road (MD 189) to Oaklyn Court
	5. Oaklyn Drive	Developer	Oaklyn Court to Bradley Boulevard/Persimmon Tree Road (MD 191)
<u>DAMASCUS</u>	6. Lewis Drive	County/State	Main Street (MD 27) to MD 27
	7. Sweepstakes Road	County	MD 27 to MD 124 (Approximately 50% widened by developer)
<u>GERMANTOWN EAST</u>	8. MD 118 Relocated	County/ Developer	MD 355 to I-270
<u>GERMANTOWN WEST</u>	9. Bridge Replacement	County	Waring Station Road
	10. Crystal Rock Drive*	County	Germantown Drive to Germantown Road (MD 118)
	11. Germantown Drive*	County	Crystal Rock Drive to Wynnfield Drive
	12. MD 118 Relocated	County/State	Wisteria Road to Clopper Road
	13. Clopper Road (MD 117)	County	Great Seneca Highway to MD 118 Relocated

(continued)

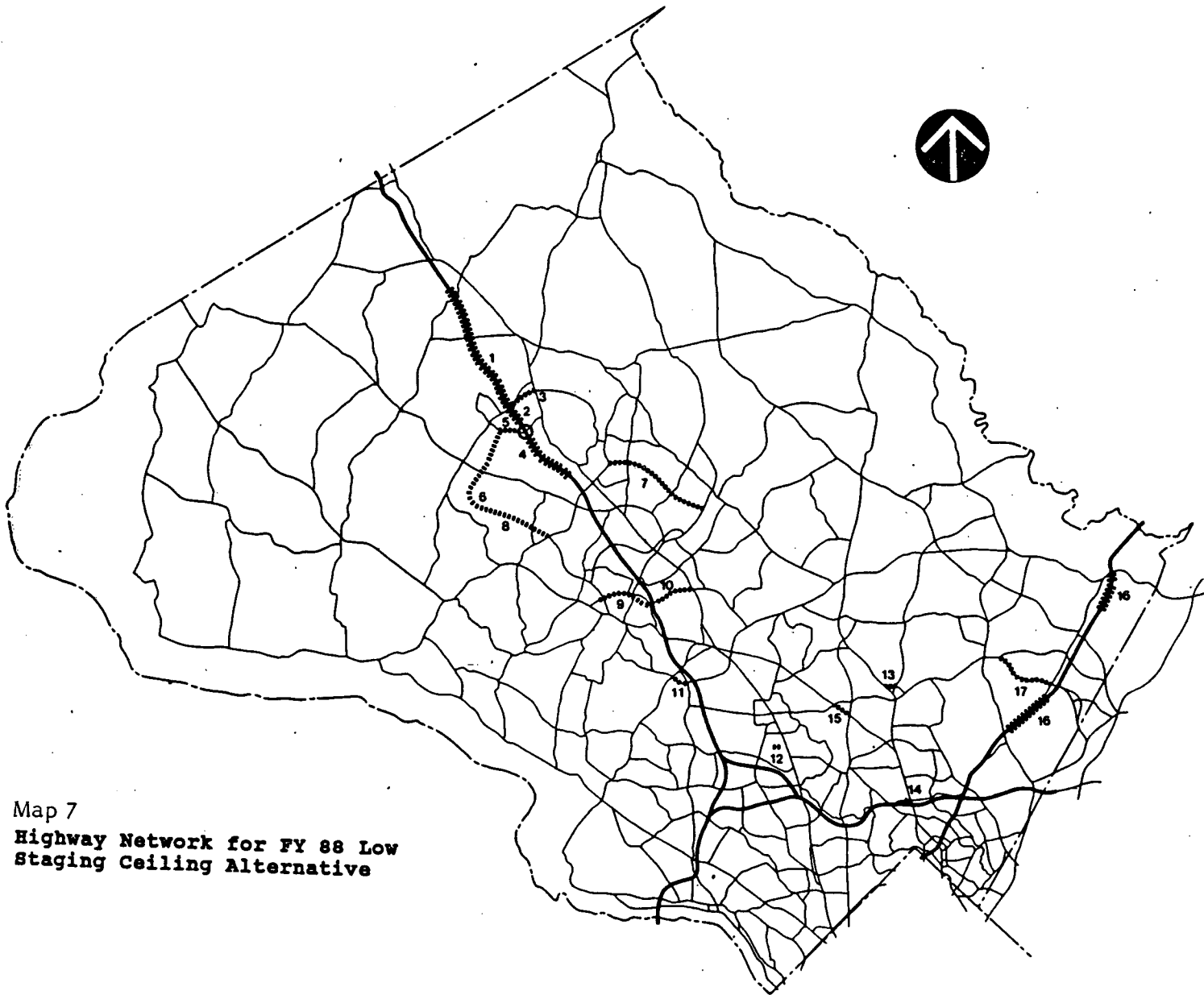
* These projects are listed as Impact Fee Improvements in the MCDOT FY 87-92 CIP.

Policy Area (continued)	Roadway	State, County Developer or City	Limits
<u>GAITHERSBURG</u> <u>EAST</u>	14. Frederick Avenue (MD 355)	State	South Summit Avenue to Chestnut Street
	15. Gude Drive	County	MD 355 to Southlawn Lane
	16. Gude Drive Railroad Bridge	County	Widening railroad bridge east of MD 355
	17. I-370 Metro Connection	State	I-270 to Shady Grove Metro Station access road
	18. I-270 Widening	State	Montgomery Village Avenue (MD 124) to Shady Grove Road
	19. Airpark Road Extended	County	Laytonsville Road (MD 124) to Shady Grove Road
	20. Muddy Branch Road	County/City	I-270 to West Diamond Avenue (MD 117)
<u>GAITHERSBURG</u> <u>WEST</u>	21. I-270 Interchange	State	West Diamond Ave. (MD 117) and Montgomery Village Ave. (MD 124)
	22. Sam Elg Highway	County	I-270 to Great Seneca Highway
	23. Fields Road	County	Muddy Branch Road to Omega Drive
	24. Great Seneca Highway Phase II	County	Quince Orchard Road (MD 124) to Darnestown Road (MD 28)
	25. Key West Avenue	County	Shady Grove Road to Gude Road Extended
	26. Key West Avenue - MD 28, Phase III	County	Great Seneca Highway to Shady Grove Road (widening)
	27. Longdraft Road	County	Quince Orchard Road (MD 124) to Clopper Road (MD 117)
	28. Shady Grove Road Widening West, Phase II	County	Research Boulevard between Shady Grove Road and Omega Drive
	29. Muddy Branch Road	County/City	Darnestown Road (MD 28) to I-270
	30. I-270 Widening	State	Montgomery Village Avenue (MD 124) to Shady Grove Road
	31. MD 28 Widening	State/Developer	Key West Avenue to Research Boulevard
<u>ROCKVILLE</u>	32. I-270 Widening, including Falls Road (MD 189) Interchange	State	Shady Grove Road to Montrose Road
<u>NORTH BETHESDA</u>	33. Ritchie Parkway	Rockville/County State/Developer	Seven Locks Road to Rockville Pike (MD 355)
	34. I-270 Widening	State	Montrose Road to I-270 Spur
<u>BETHESDA</u>	35. I-495 Capital Beltway	State	Wisconsin Avenue (MD 355) to Georgia Avenue (MD 97)
	36. Woodmont Avenue, Wisconsin Avenue to Battery Lane	County	Wisconsin Avenue (MD 355) to Battery Lane
	37. Woodmont Avenue Extended	County	Montgomery Lane to Leland Avenue
	38. Friendship Boulevard/Hills Plaza	County	Willard Avenue to Western Avenue
<u>SILVER SPRING/ TAKOMA PARK</u>	39. I-495 Capital Beltway	State	Wisconsin Avenue (MD 355) to Georgia Avenue (MD 97)
<u>KENSINGTON/ WHEATON</u>	40. Layhill Road (MD 182)	State	Georgia Avenue (MD 97) to Longmead Road
<u>ROCK CREEK</u>	41. Airpark Road Extended	County	Laytonsville Road (MD 124) to Shady Grove Road
<u>OLNEY</u>	42. Georgia Avenue (MD 97)	County/State	Norbeck Road (MD 28) to south of Olney-Sandy Spring Road (MD 108)
<u>CLOVERLY</u>	43. Bonifant Road	County	Layhill Road (MD 182) to New Hampshire Avenue (MD 650)
	44. Good Hope Road Realignment	County	To New Hampshire Avenue (MD 650) and New Bonifant Road
	45. MD 28 - MD 198 Connector	County/State	Layhill Road (MD 182) to New Hampshire Avenue (MD 650)
<u>FAIRLAND/ WHITE OAK</u>	46. Briggs Chaney Realignment	County	At Old Columbia Pike
	47. Columbia Pike (US 29)*	County/State/ Developer	Industrial Parkway to Greencastle Road
	48. East Randolph Road, Phase I*	County	New Hampshire Avenue to Fairland Road
	49. Fairland Road	County	East Randolph Road to Columbia Pike (US 29)

* These projects are listed as Impact Fee Improvements in the MCDOT FY 87-92 CIP.

Table 6
FIFTH YEAR OF CIP MOVES FORWARD ONE YEAR
AND NEW PROJECTS IN SHA PROGRAM

Policy Area	Transportation Capacity Improvement	Implementor	Limits
<u>CLARKSBURG</u>	1. I-270 Widening	State	Clarksburg Road (MD 121) to Germantown Road (MD 118)
<u>GERMANTOWN EAST</u>	2. I-270 Widening including the Interchange at Middlebrook Road	State	Germantown Road (MD 118) to Montgomery Village Avenue (MD 124)
	3. Germantown Road (MD 118 Relocated), Phase II	County	Frederick Avenue (MD 355) to I-270
<u>GERMANTOWN WEST</u>	4. I-270 Widening including the Interchange at Middlebrook Road	State	Germantown Road (MD 118) to Montgomery Village Avenue (MD 124)
	5. Middlebrook Road Widening	County	Great Seneca Highway to I-270
	6. Great Seneca Highway, Phase III	County	Middlebrook Road to Great Seneca Creek
<u>GAITHERSBURG EAST</u>	7. Mid-County Highway (MD 115 Relocated)	State	Montgomery Village Avenue to Shady Grove Road
<u>GAITHERSBURG WEST</u>	8. Great Seneca Highway, Phase III	County	Great Seneca Creek to Quince Orchard Road (MD 124)
	9. Key West Avenue	County/Developer	Great Seneca Highway to Gude Drive
<u>ROCKVILLE</u>	10. Gude Drive	City	Piccard Drive to Frederick Avenue (MD 355)
	11. Ritchie Parkway	City	Falls Road (MD 189) to Seven Locks Road
<u>NORTH BETHESDA</u>	12. Edson Lane	County	Woodglen Drive to Rockville Pike (MD 355)
<u>KENSINGTON WHEATON</u>	13. Glen Allen Avenue	County	Georgia Avenue (MD 97) to Layhill Road (MD 182)
	14. Forest Glen Road (MD 192)	State WMATA	Belvedere Place to Georgia Avenue (MD 97)
	15. Veirs Mill Road (Special Project)	State	Randolph Road to Connecticut Avenue (MD 185)
<u>FAIRLAND/WHITE OAK</u>	16. US 28 Widening (Special Project)	State	New Hampshire Avenue (MD 650) to Industrial Parkway and Greencastle Road to Spencerville Road (MD 198)
	17. East Randolph Road	County	Fairland Road to Old Columbia Pike

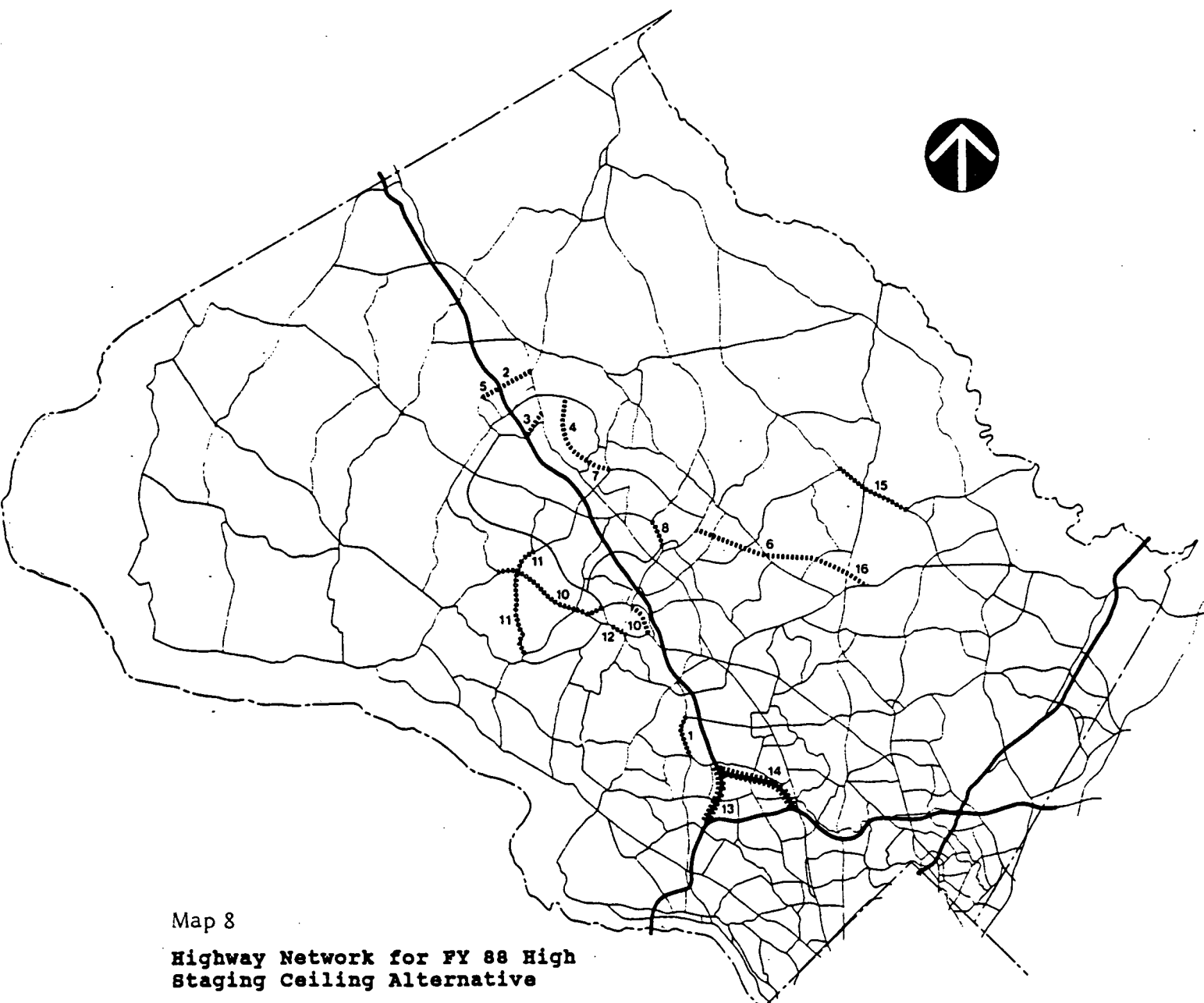


Map 7
Highway Network for FY 88 Low
Staging Ceiling Alternative

Table 7

SIXTH YEAR OF CIP MOVES FORWARD TWO YEARS
AND SHA PLANNING PROJECTS GO INTO THE CONSTRUCTION PROGRAM

Policy Area	Transportation Capacity Improvement	Implementor	Limits
<u>POTOMAC</u>	1. Seven Locks Road	County	Montrose Road to Tuckerman Lane
<u>GERMANTOWN EAST</u>	2. Germantown Drive	State/ County/ Developer	I-270 to Frederick Avenue (MD 355)
	3. Middlebrook Road	County	I-270 to Frederick Avenue (MD 355)
	4. Mid-County Highway Extended	County	Great Seneca Creek to Germantown Road Extended (MD 118)
<u>GERMANTOWN WEST</u>	5. Germantown Drive	State/ County/ Developer	Crystal Rock Drive to I-270
<u>GAITHERSBURG EAST</u>	6. Intercounty Connector/MD 115 Relocated	State/ County	Shady Grove Road to North Rock Creek
	7. Mid-County Highway Extended	County	Montgomery Village Avenue to Great Seneca Creek
	8. MD 124/Shady Grove Road Connector (Oakmont Avenue)	County	MD 124 to Shady Grove Road
<u>GAITHERSBURG WEST</u>	10. Key West Avenue/Darnestown Road (MD 28 Relocated)	State	Research Boulevard to Riffleford Road
	11. Quince Orchard Road Widening and Safety Project	State/ County	Longdraft Road to Dufief Mill Road
	12. Great Seneca Highway Extended	County	Darnestown Road (MD 28) to Ritchie Parkway
<u>NORTH BETHESDA</u>	13. I-270 West Spur	State	I-270 to I-495
	14. I-270 East Spur	State	I-270 to I-495
<u>OLNEY</u>	15. Laytonsville Road (MD 108)	State	Olney Mill Road to Dr. Bird Road
	16. Intercounty Connector/MD 115 Relocated	State/ County	North Rock Creek to Norbeck Road (MD 28)



Map 8
Highway Network for FY 88 High
Staging Ceiling Alternative

these projects it might be administratively and fiscally feasible to accelerate their construction schedule by one year, in order to have these projects completed by the fourth fiscal year of the CIP which will be adopted for FY 1988-93. Also added to that list are three state projects which are in the latter stages of project planning. If additional revenue sources are enacted by the legislative in the Spring of 1987, then they may be able to be scheduled to have 100 percent construction expenditures by the fourth fiscal year of the FY 1987-92 CTP. In addition, the state project for MD 108 is one which has been unofficially committed to by the Maryland Department of Transportation to be included in the FY 88 Special Projects Program, but is not yet listed in the draft FY 1987-92 CTP.

B) Transit Capital Improvements

Table 8 and the associated Reference Map 9 present the transit capital projects which have been used in the preparation of the Annual Growth Policy Report. This is the set of projects upon which the adopted FY 87 staging ceilings have been calculated. This set has been held constant in the analysis which has been done to develop both the Low and High FY 88 staging ceiling alternatives. With the exceptions of a fringe parking lot at White Oak which has already been recommended by the Executive, another potential fringe lot at Burtonsville and additional Ride-On buses, there do not appear to be other transit capital improvements which will be scheduled to have 100 percent expenditure in the first four fiscal years of the CIP which will be adopted for FY 1988-93. If those projects were to be included in the FY 1988-93 CIP, they would not appreciably change the levels of transit availability in any of the policy areas.

C) Short-Term and Mid-Term Traffic Alleviation Measures

Table 9 presents a summary listing of the short-term traffic alleviation measures recommended for initiation in FY 1987 and 1988 by the Executive and as approved by the Council. Table 9 also gives the budget status as of October 1986 indicating which measures have so far received budget appropriations. This last group of short-term traffic alleviation is part of the set for which estimates have been made of increases in the staging ceilings which are shown in the staging ceiling charts. Also included in those estimates are traffic alleviation measures being funded through developer participation agreements which were required at the time of approval of several preliminary plans. This list of short-term traffic alleviation measures represents the projects approved by the Council for implementation in FY 87 and 88, and were selected from a longer list of measures included in the report on Short-Term Traffic Alleviation Policy, adopted by the Council in October 1986.

Planning staff has produced an even longer list of potential mid-term traffic alleviation measures, which could be implemented over a four to five year time frame. This list has been described in more detail in a separate Planning Department report Scenarios

Map 9

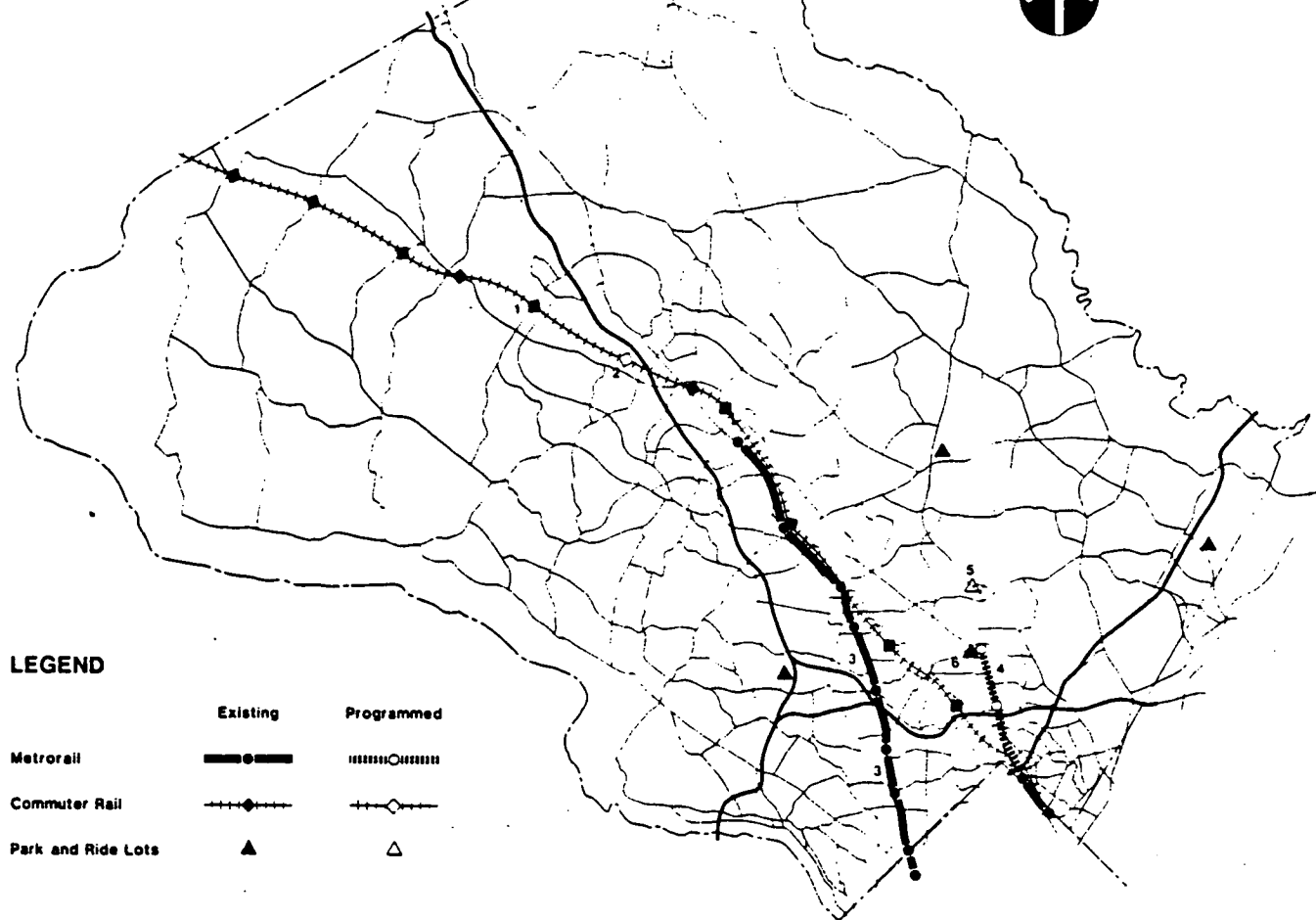


Table 8 . LIST OF TRANSIT PROJECTS BY POLICY AREA WHICH ARE ONE HUNDRED PERCENT PROGRAMMED FOR CONSTRUCTION THE FIRST FOUR FISCAL YEARS OF THE MONTGOMERY COUNTY FY 1987-92 CIP OR THE MDDOT FY 1986-91 CONSOLIDATED TRANSPORTATION PROGRAM

Policy Area	Roadway	Implementor	Limits
<u>Germantown West</u>	1. Commuter Rail Station Parking	State/County	Germantown Station
<u>Gaithersburg West</u>	2. New Commuter Rail Station	State	Metropolitan Grove Road
<u>North Bethesda</u>	3. Metro Station Bicycle Parking	County	At Four Stations On the Red Line
<u>Bethesda</u>			
<u>Kensington/ Wheaton</u>	4. Glenmont Metro Rail Line	WMATA	Stations at Wheaton and Forest Glen
	5. Glenmont Park and Ride Lot	County	Glenmont Metro Station
	6. Wheaton Station Enhanced Parking	WMATA	New Garage at Wheaton

and Staging Ceilings, Alternative Transportation, October 28, 1986, Exhibit 2.3. That list identifies more than twenty-five additional measures than contained in the full list of approximately fifty potential short-term measures. There is a very large number of potential combinations of these mid-term traffic alleviation measures. Any one measure can have a wide variety of features which could greatly influence its costs, implementation feasibility, and effectiveness. Consequently, no estimates are being made at this time for corresponding staging ceilings, due to the very wide diversity of specific implementation options and resulting uncertainties of the effectiveness of those measures.

Table 9 - SUMMARY OF TRAFFIC ALLEVIATION MEASURES APPROVED FOR INITIATION IN FY 86-87 AND THEIR BUDGET STATUS

Traffic Alleviation Measure Grouping and Description of the Traffic Alleviation Measures	Short-Term Traffic Alle- viation Measures As Approved By County Council	County DOT Budget As Approved By County Council
4. <u>Ridesharing Measures</u>		
a. Strengthen staffing of Silver Spring & Bethesda Share-A-Ride Program	X	X
b. Establish a Share-A-Ride Project in the Gaithersburg East Area	X	
c. Intensify promotion of Ridesharing advertisement	X	X
e. Direct subsidy for vanpools	X	X
5. <u>Public and Private Transit Measures</u>		
b. Better utilization of Metrorail park and ride through fee increases and ridesharing	X	
c,d, Increase bus frequency and service m coverage; develop operating improve- ments and tailored services to improve transit convenience	X	X
e. Provide discounted transit passes through employers	X	X
j. Provide periodic free transit service to encourage trial usage	X	X
k. Targeted fare policies to encourage ridership	X	X
l. Targeted marketing efforts to pro- mote transit use in areas needing traffic congestion alleviation	X	
n. Provide new commuter fringe parking lots and use existing private lots	X	X
6. <u>Bicycle and Pedestrian Measures</u>		
a. Hire bikeway design consultant	X	
7. <u>Parking Measures</u>		
d. Expansion of the "Get In" Program to Bi-County and Board of Education employees working in traffic con- gestion areas	X	
e. Consider County legislation requiring private employers to take action de- signed to increase the attractiveness of alternative transportation	X	X
8. <u>Employment Activity Measures</u>		
b. Employer provided shuttles to Metrorail	X	
<u>Increase collection of traffic data</u>	X	X

SCHOOL PROJECTS IN THE ADOPTED FY 87 to FY 92 CIP
As Currently Scheduled

<u>School</u>	<u>Opening Date</u>	<u>Total Capacity</u>	<u>High School Cluster</u>
<u>Area I</u>			
Einstein HS addition (gym - includes 2 teaching stations)	9/88	1,842	Einstein
Kennedy HS addition (gym - includes 2 teaching stations)	9/89	1,500	Kennedy
Paint Branch HS addition	9/88	1,780	Paint Branch
New Hampshire Estates ES (new)	8/88	635	Montgomery Blair
Oakview ES addition	9/88	633	Montgomery Blair
Rolling Terrace ES (new)	9/88	866	Montgomery Blair
<u>Area II</u>			
Winston Churchill HS addition (gym - includes 2 teaching stations)	9/89	1,749	Winston Churchill
Rockville HS addition (gym - includes 2 teaching stations)	9/90	1,510	Rockville
Luxmanor ES addition	9/88	563	Walter Johnson/
Rosemary Hills ES addition	9/88	591	Bethesda Chevy Chase
<u>Area III</u>			
Magruder HS addition (gym - includes 2 teaching stations)	9/90	1,563	Magruder
Wootton HS (gym - includes 2 teaching stations)	9/88	1,750	Wootton
Quince Orchard HS (new)	9/88	1,665	Seneca Valley
Watkins Mill HS (new)	9/89	1,650	Gaithersburg
Moyer Rd. ES (new)	9/88	690	Damascus
Cedar Grove ES addition	9/87	495	Damascus
Goshen ES (new)	12/87	690	Gaithersburg
Hadley Farms ES (new)	9/89	690	Gaithersburg
Muddy Branch ES (new)	9/88	690	Gaithersburg

NEW SCHOOL PROJECTS IN THE REQUESTED FY 88 to FY 93 CIP
As Requested by MCPS Staff

<u>School</u>	<u>Opening Date</u>	<u>Total Capacity</u>	<u>High School Cluster</u>
<u>Area I</u>			
Montgomery Knolls ES addition	9/89	446	Montgomery Blair
E. Silver Spring ES addition	9/88	423	Montgomery Blair
Green Castle ES (new)	9/88	690	Paint Branch
Cloverly ES reopening	9/89	444	Paint Branch/ Springbrook
Broad Acres ES addition	9/89	497	Springbrook
Cresthaven ES addition	9/88	563	Springbrook
<u>Area II</u>			
Rock Creek Forest ES addition	9/89	442	Bethesda/Chevy Chase
Garrett Park ES addition	9/90	469	Walter Johnson/ Charles Woodward
Kensington-Parkwood ES addition	9/90	458	Walter Johnson/ Charles Woodward
<u>Area III</u>			
Strawberry Knoll ES (new)	9/88	690	Gaithersburg
Gaithersburg Area ES (new)	9/91	690	Gaithersburg
S. Lake*	9/87	613*	Gaithersburg/ Seneca Valley

* Area office relocation out of school opens up 7 classrooms for instruction.

Source: Educational Facilities Planning and Development and Requested FY 88 Capital Budget and the FY 88 to FY 93 Capital Improvements Program, Montgomery County Public Schools.

SCHOOL PROJECTS IN THE ADOPTED FY 87 to FY 92 CIP
As Currently Scheduled (Continued)

Clopper Mill ES (new)	9/86	677	Seneca Valley
Clear Spring ES (new)	9/89	690	Seneca Valley
Germantown Area ES (new)	9/91	690	Seneca Valley
Gunners Lake ES (new)	9/87	690	Seneca Valley
Jones Lane ES (new)	9/87	669	Seneca Valley/ Wootton
Waters Landing ES (new)	12/87	690	Seneca Valley

Appendix 1:

**ANNUAL
GROWTH
POLICY
LEGISLATION**

APPENDIXES

Material in this appendix is provided for reference purposes only and is not part of the Annual Growth Policy adopted by the Council.

~~(THIS BILL AND BILL 12-86 ARE IDENTICAL TO ALLOW THE COUNCIL TO ADOPT PART OF ONE BILL AND CONTINUE WORKING ON THE OTHER PART THROUGH THE SECOND BILL)~~

~~(IDENTICAL TO BILL 12-86)~~
Bill No.: 11-86
Concerning: ~~Growth Policy, Impact/~~
~~Fees, and Excise/Taxes/~~
Draft No. & Date: 5 - 4/17/86
Introduced: February 25, 1986
Enacted: April 15, 1986
Executive: April 21, 1986
Effective: April 21, 1986
Sunset Date: ~~June 30, 1989 for~~
~~Growth Management Policy provisions~~
Ch. 53, Laws of Mont. Co., FY 86

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

By: County Council

AN EMERGENCY ACT to:

- (1) provide for the establishment of an annual growth policy for the County;
- (2) ~~provide for the establishment of an annual emergency growth policy for the County that will sunset by a certain date;~~
- (3) ~~provide for the establishment of impact fees on development for financing major highways in impact fee areas;~~
- (4) ~~provide for the establishment of excise taxes for financing public school facilities in the County; and~~
- (5) ~~REPEAL PROVISION ON ASSESSMENT OF BENEFITS FOR ROAD CONSTRUCTION; AND~~
- (5) (6) ~~generally provide for measures to alleviate facilities overload in the County.~~

By amending

~~Chapter 8, Buildings~~
~~Sections 8-24A and 8-25(b) of the Montgomery County Code~~

~~Chapter 20, Finance~~
~~Article IV of the Montgomery County Code~~

and

Chapter 33A, Planning Procedures, of the Montgomery County Code

By/adding/to
Chapter/52//Taxation
Article/VII/of/the/Montgomery/County/Code

AND

CHAPTER/49//STREETS/AND/ROADS
ARTICLE/IV/OF/THE/MONTGOMERY/COUNTY/CODE

- EXPLANATION:
- Boldface indicates matter that is a heading or a defined term.
 - Underlining indicates matter added to existing law.
 - [[Double Brackets]] indicate matter repealed from existing law.
 - CAPITALS indicate matter quoted from existing law which is added to the bill by amendment.
 - UNDERLINED CAPITALS indicate matter added to existing law by amendment to the bill.
 - ~~Strikes~~ indicate matter deleted from the bill by amendment.
 - * * * indicates existing law unaffected by the bill.

The County Council for Montgomery County, Maryland, approves the following act:

8-23//Permits/

(b) Time/limit/

(1) Any/permit/issued/shall/become/invalid/if/the/authorized/work/
is/not/commenced/within/six/months/of/the/date/of/approval/of
is/suspended/or/abandoned/for/a/period/of/six/months/
provided,/that/the/director/may,/upon/good/cause/shown,/within
either/of/the/six/months/periods,/extend/a/permit/for/an
additional/period/not/exceeding/six/months/

(2) For/applications/received/after/February/11,/1983,/any/permit/
for/new/residential/construction/becomes/invalid/if/the
footings/are/not/started/within/6/months/from/the/date/of
issuance/or/the/second/inspection/is/not/completed/within/10
months/from/the/date/of/issuance//For/applications/received
after/January/1,/1986,/any/permit/for/new/non-residential
construction/becomes/invalid/if/the/footings/are/not/started
within/6/months/from/the/date/of/issuance/or/the/second
inspection/is/not/completed/within/10/months/from/the/date/of
issuance//New/permits/to/replace/those/which/become/invalid
may/not/be/issued/unless/the/director,/after/receiving/the
advice/of/the/Planning/Board,/finds/that/the/subdivision/
subsequent/to/the/expiration/of/the/permits,/meets/the
requirements/of/the/adequate/public/facilities/ordinance/

Sec. 2 1. Chapter 33A is amended to read as follows:

Chapter 33A

Planning Procedures.

Division 1. Master Plans.

* * * *

Division 2. Growth Policies.

33A-13. Annual growth policy.

(a) Purpose.

(1) The purpose of this law is to establish a process by which the County Council can give policy guidance to the various agencies of government and to the general public on matters concerning:

(A) land use development;

(B) growth management; and

(C) related environmental, economic, and social issues.

(2) The process will be established through the adoption by the County Council of an annual growth policy, which is intended to be an instrument that facilitates and coordinates the use of the various powers of government to limit or encourage growth and development in a manner that best enhances the general health, welfare, and safety of the residents of the County.

(b) Simplified description.

(1) The County Council must adopt a growth policy:

(A) no later than June 30 of each year; and

(B) after:

(i) receipt of a draft annual growth policy prepared by the Montgomery County Planning Board;

(ii) receipt of ~~comments and any recommended revisions~~ SPECIFIC RECOMMENDATIONS prepared by the County Executive, and COMMENTS BY other public agencies concerning the draft annual growth policy; and

(iii) a public hearing on both the draft annual growth

01 policy and the recommendations of the Executive, and
 02 ON THE COMMENTS OF other agencies.

03 (2) The annual growth policy is effective for a fiscal year,
 04 beginning July 1 through June 30.

05 (c) Duties of the Planning Board.

06 (1) The Montgomery County Planning Board must:

07 (A) each year, produce a draft annual growth policy;

08 (B) by December 1 of each year,:

09 (1) send copies of the draft to the County Executive,
 10 the other agencies, and the County Council; AND

11 (11) MAKE COPIES AVAILABLE TO THE GENERAL PUBLIC;

12 ~~(C) within/30/days/thereafter//make/the/draft/available/to/the~~
 13 ~~general/public//and~~

14 (D) (C) by October 15, make available a staff draft to the STAFF
 15 OF THE Executive staff AND OTHER AGENCIES for THEIR use
 16 in preparing the recommended Capital Improvements
 17 Programs for the next fiscal year.

18 (2) The draft annual growth policy must include:

19 (A) a status report on the general land use conditions in the
 20 County including:

21 (i) the remaining growth capacity of zoned land;

22 (11) the pipeline of approved development permits
 23 INCLUDING PRELIMINARY SUBDIVISION PLANS, SEWER

24 AUTHORIZATIONS, RECORD PLATS, AND BUILDING PERMITS;

25 (111) the recent trends in real estate transactions;

26 (iv) the level of service conditions of major public
 27 facilities and environmentally sensitive areas; and

- 01 (v) other relevant monitoring measures;
- 02 (B) a forecast of the most probable trends in population,
03 households, and employment for the next 10 years,
04 including a section that focuses on the key factors that
05 may affect the trends for the immediate next 2 years;
- 06 (C) a set of recommended growth capacity ceilings for each
07 policy area within the County, for both residential and
08 employment land uses, which are based on:
- 09 (i) alternative possible scenarios of potential public
10 facility growth; and
- 11 (ii) recommended level of service indices for major
12 public facilities;
- 13 (D) a set of policy guidelines for the Planning Board, and
14 other agencies as appropriate, with respect to their
15 administration of the ordinances and regulations that
16 affect growth and development; and
- 17 (E) any other information or recommendations as may be
18 relevant to the general subject of growth policy, or as
19 may be requested by the County Council:
- 20 (i) in the course of adopting the annual growth policy
21 for the year; or
- 22 (ii) by a subsequent resolution.
- 23 (d) Duties of the County Executive.
- 24 (1) By January 1 of each year, the County Executive must send to the
25 County Council, comments on the draft annual growth policy of
26 the Planning Board, including any recommended revisions:
- 27 (A) A SET OF RECOMMENDED GROWTH CAPACITY CEILINGS FOR EACH

PLANNING POLICY AREA, FOR BOTH RESIDENTIAL AND FOR
EMPLOYMENT LAND USE USES, THAT ARE CONSISTENT WITH THE
RECOMMENDED CAPITAL IMPROVEMENTS PROGRAM; AND

(B) ANY OTHER REVISIONS IN THE DRAFT OF THE PLANNING BOARD in
the form of specific additions or deletions.

(2) ~~THE~~ AT THE SAME TIME, THE County Executive must make
available to the Planning Board, THE OTHER AGENCIES, and the
general public copies of ~~the/comments/and/recommended~~
~~revisions/TWOSE~~ THESE RECOMMENDATIONS.

(3) During the year, the County Executive must assist the Planning
Board to compile its status report for the draft annual growth
policy by making available monitoring data that is routinely
collected by Executive branch departments.

(4) The County Executive must use the information in the draft
annual growth policy of the Planning Board as a reference
document in preparing the recommended Capital Improvements
Program of the Executive for the next fiscal year, particularly
with respect to the linkage between future capital construction
schedules and policy area capacity ceilings.

(e) Duties of the Montgomery County Board of Education.

(1) By January 1 of each year, the Montgomery County Board of
Education must send to the County Council its comments on the
draft annual growth policy of the Planning Board, including any
recommended revisions in the form of specific additions or
deletions.

(2) ~~THE~~ AT THE SAME TIME, THE Board of Education must make
available to the Planning Board and the general public copies of

the comments and recommended revisions.

- (3) During the year, the Board of Education must assist the Planning Board to compile its status report for the draft annual growth policy by making available monitoring data that is routinely collected by branch departments of the Board of Education.

(f) Duties of the Washington Suburban Sanitary Commission.

- (1) By January 1 of each year, the Washington Suburban Sanitary Commission must send to the County Council its comments on the draft annual growth policy of the Planning Board, including any recommended revisions in the form of specific additions or deletions.
- (2) THE AT THE SAME TIME, THE Washington Suburban Sanitary Commission must make available to the Planning Board and the general public copies of the comments and recommended revisions.
- (3) During the year, the Washington Suburban Sanitary Commission must assist the Planning Board to compile its status report for the draft annual growth policy by making available monitoring data that is routinely collected by branch departments of the Washington Suburban Sanitary Commission.

(g) Duties of the County Council.

- (1) After receipt of the draft annual growth policy ~~and any~~ ~~recommended/revisions~~, THE RECOMMENDATIONS OF THE COUNTY EXECUTIVE, AND THE OTHER AGENCY COMMENTS, the County Council must hold a public hearing on the draft, RECOMMENDATIONS AND COMMENTS ~~and the recommended/revisions~~.
- (2) No later than June 30 of each year, the County Council must adopt an annual growth policy to be effective throughout the

next fiscal year. IF THE COUNTY COUNCIL DOES NOT ADOPT A NEW
ANNUAL GROWTH POLICY, THE ANNUAL GROWTH POLICY ADOPTED THE
PREVIOUS YEAR REMAINS IN EFFECT.

(3) WHEN ADOPTING THE ANNUAL GROWTH POLICY, THE COUNTY COUNCIL MUST
APPROVE, OR APPROVE WITH AMENDMENTS, THE RECOMMENDATIONS OF THE
COUNTY EXECUTIVE.

(3) (4) The County Council may adopt a subsequent resolution, AFTER
PUBLIC HEARING, to amend the annual growth policy.

13A-14.1.1. Emergency growth policy.

(a) Purpose. The purpose of this section is to:

- (1) address the danger to the health, safety, and welfare of
County residents in those planning policy areas of the County
that the County Council determines will continue to suffer
from critical facilities overload until the current State and
County 6-year Capital Improvement Programs are constructed;
- (2) address this short-term emergency situation by alleviating the
facilities overload in those planning policy areas in order to
reduce accidents, concentration of air pollutants, and delays
and in order to improve dangerous road conditions;
- (3) establish a temporary process by which the current problems of
excess traffic and school congestion in those planning policy
areas may be mitigated in a fair and effective manner;
- (4) establish a procedure that allows government, private,
industry, and general public involvement in resolving this
short-term emergency situation; and
- (5) establish a graduated sequence of measures to alleviate the
facilities overload, which measures exhaust all reasonable

01 Sec. 5. Severability.

02 If a court holds that part of this act is invalid, the invalidity does not
03 affect other parts.

04
05 Sec. 6. Emergency Effective Date.

06 The Council declares that an emergency exists and that this legislation is
07 necessary for the immediate protection of the public health and safety. This
08 act takes effect on the date on which it becomes law.

09
10 Approved:

11 William E. Hanna
12
13 William E. Hanna, Jr., President, County Council

4/18/86
Date

14
15 Approved:

16 Charles W. Gilchrist
17
18 Charles W. Gilchrist, County Executive

4/21/86
Date

19
20
21
22 This is a correct copy of Council action.

23 Kathleen A. Freedman
24
25 Kathleen A. Freedman, Secretary, County Council

4/21/86
Date

Appendix 2:

TRENDS

STATUS - JOBS, HOUSING, PEOPLE

Introduction

The following material highlights elements of Montgomery County's development trends for jobs, housing, and people. This subject is described in much greater detail in a November 12, 1986 staff report entitled, "Trends & Forecasts, Jobs, Housing, Population & Births."

Jobs

Montgomery County has just come through a "gold rush" increase in job opportunities. At place employment in the County grew by nearly 25,000 jobs in 1984. This is the largest single year employment increase recorded over the past two decades. Between 1984 and 1986 employment gains are estimated at 15,000 per year. These estimates are preliminary as they are based upon indirect source data.

Housing

Montgomery County is also experiencing its strongest housing construction boom in over 20 years. This boom was brought about by high levels of employment growth, lower home mortgage interest rates, and continued strength in rental housing production. The current housing production upturn began in 1983, when housing completions rose to 6,150 units from approximately 3,500 units in 1982. The 1983 total constituted the highest annual completion amount recorded since 1974. In 1984 and 1985, housing completions continued their increase, to 8,400 and 9,800 units, respectively.

Employment Space

The following (Table 1) shows the high levels of office and industrial space development in Montgomery County during recent years. Office space completion in 1985 more than quadrupled 1979's annual volume, and warehouse/industrial space more than doubled 1979 production. Retail space development has fluctuated, apparently "marching to its own drummer," with near-peak square footage unexpectedly occurring in 1982, the trough of the 1981-1982 recession, and subsequently falling to its lowest level in 1983, when the national and regional economies were making strong recovery.

Table 1

MONTGOMERY COUNTY NON-RESIDENTIAL CONSTRUCTION
(Number of Square Feet)

	Office	Retail	Warehouse/ Industrial	Total
1979	812,204	378,526	877,854	2,068,584
1980	1,598,158	554,174	404,924	2,557,256
1981	2,965,365	379,961	722,431	4,067,757
1982	1,496,592	702,878	800,948	3,000,418
1983	2,723,345	322,031	819,488	3,864,864
1984	2,272,551	819,756	1,726,192	4,818,499
1985	3,725,782	395,546	1,806,036	5,927,364
Total	15,593,997	3,552,872	7,157,873	26,304,742

Source: Research Division, Montgomery County Planning Department.
Compiled from data provided by the State Department of
Assessments and Taxation.

The County's share of regional non-residential building starts has risen over the past three years, growing from 14.0 percent in 1984 to 19.0 percent for the first quarter of 1986. Jurisdictions experiencing the largest increases in commercial and industrial square footage include Fairfax County and the Core Area (Washington, D.C., Arlington, and Alexandria), whose shares constitute 28.0 and 30.0 percent, respectively, of total regional growth in the first quarter of 1986.

Montgomery's office space completions increased from approximately 47 percent total of 1984 non-residential development to more than 62 percent of 1985 activity. The vastly increased total office space inventory, from 21 million to about 36 million square feet, has caused the office vacancy rate to rise from 3.0 to 16.0 percent. In square footage terms, vacancies grew from 0.6 million square feet in 1980 to 5.7 million square feet by the spring of 1986. This growth in the vacancy rate occurred in the face of extremely strong industry-reported leasing, 1.6 million square feet during the first four months of 1986.

Industrial space completions in both 1984 and 1985 were at record levels in Montgomery County. Area-wide occupancy of industrial/warehouse space during the 1980's has kept pace with construction, since the majority of this space is "built to suit." Also, this comparatively low-priced kind of space accommodates a wide variety of uses, e.g., warehousing, assembly, wholesaling, and retailing. The area occupancy rate for industrial space was 90 percent in 1984 and as recently as 1982 stood at 98 percent.

Table 2

AT PLACE EMPLOYMENT
DISTRIBUTION BY SECTOR
MONTGOMERY COUNTY
1979-1984

	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Major Industrial Sectors						
Agriculture and Mining	1,644	1,504	1,673	1,807	1,972	2,191
Construction	26,768	27,131	27,632	24,718	24,504	28,549
Manufacturing	17,248	17,570	18,398	19,072	19,782	22,331
Transportation, Communication & Public Utilities	8,317	8,458	8,986	9,492	10,225	9,805
Wholesale Trade	8,392	8,626	9,544	9,098	10,055	11,480
Retail Trade	52,645	51,240	52,141	48,663	51,057	54,404
Finance, Insurance & Real Estate	23,307	21,622	22,233	22,418	21,996	24,518
Services	73,817	79,150	85,886	88,823	94,839	102,803
Other						
(Self employed nonclassifiable)	16,200	16,200	16,200	18,000	18,000	19,600
Federal						
(Includes military)	44,895	47,222	44,663	45,227	46,000	47,300
State and Local	23,400	23,000	23,000	23,200	22,000	22,300
Total At-Place Employment	296,633	301,723	310,356	310,518	320,430	345,281

Source: County Business Patterns and Research Division, Montgomery County Planning Department.

Table 3

MONTGOMERY COUNTY DEVELOPMENT REPORT¹
(NUMBER OF PERMITS AND ACTIONS PROCESSED)

Calendar Year 1984

	<u>Single-Family</u>			
	Detached Units	Town- house Units	Apart- ment Units	Total Dwelling Units
RESIDENTIAL				
Sewer Authorizations Issued	2,273	1,522	1,664	5,459
Preliminary Plans Approved	4,302	4,150	1,523	9,975
Plats Recorded	3,868	3,097	790	7,755
Building Permits Issued ¹	3,006	3,684	2,189	8,879
Completions	3,023	3,604	1,773	8,400
COMMERCIAL AND INDUSTRIAL				
Sewer Authorizations Issued	3.4 Million Sq. Ft. - Gross Floor Area			
Completions	4.8 Million Sq. Ft. - Gross Floor Area			

Calendar Year 1985

RESIDENTIAL				
Sewer Authorizations	2,084	2,390	2,535	7,009
Preliminary Plans Approved	2,102	2,695	1,027	5,772
Record Plats Approved	3,955	3,800	1,698	9,453
Building Permits Issued ¹	4,126	3,500	2,015	9,642
Completions	3,463	4,095	2,234	9,798
COMMERCIAL AND INDUSTRIAL				
Preliminary Plans Approved	52			
Record Plats Approved	47			
Completions	5.9 Million Sq. Ft. - Gross Floor Area			

¹ Obtained from a computer program which reads Department of Environmental Protection records. These numbers closely agree with amounts published in the Census Bureau C-40 Reports; however, they are below the informally maintained counts of MCPD.

Source: Research Division, Montgomery County Planning Department.
Multi-family housing production was at a 10 year high of

Home Mortgage Interest Rates

This development boom has also been sustained by lower home mortgage interest rates of between 9.5 to 11.0 percent during the past year. As recently as 1982, home mortgage interest rates in the Washington D.C. area reached a reported record high of nearly 17.0 percent, largely as a consequence of a federal anti-inflation strategy of rigid monetary controls imposed by the Federal Reserve.

Resurgence of New Rental Housing Production

Similar to 1984, County rental housing production was up in 1985. Rental production rose from a near "zero" level in 1982 to an annual average production of more than 2,000 units during 1984 and 1985. This is the highest annual rate of rental housing production in 10 years.

Comparative Levels of Permit Activity

In 1982, Montgomery County's share of total permitted units in the region amounted to 36.0 percent. This share rose to nearly 39.0 percent in 1983, fell slightly to 33.0 percent in 1984, and rose again in 1985 to nearly 37.0 percent.

Montgomery County's Housing Production Mix

In 1985 townhouse construction represented some 54 percent of total single family production, compared to 60 percent in 1982.

Multi-family housing production was at a 10 year high of 2,234 units in 1985. This is an increase of 26 percent over 1984 production, which also was a high production year.

Housing Completions By Policy Area

Housing construction has been highly concentrated in two areas, the I-270 Corridor, consisting of the Germantown East and West and Gaithersburg East and West Policy Areas and Fairland/White Oak in the U.S. 29 Corridor. Combined, these two corridors accommodated some two-thirds of total County housing development. Table 4 presents housing completions by Policy Area.

Housing Sales and Turnover

In 1985, 11,000 existing single family homes were sold in the County, more than double the volume of 5,392 new home sales. This same general relationship has held over the past four years, varying slightly from a high ratio of 2.39:1 in 1982 to a low of 1.945:1 in 1984.

Table 4

HOUSING SALES BY STRUCTURE TYPE, 1982-85
MONTGOMERY COUNTY

Housing Type	1982	1983	1984	1985
New SF Detached	746	1,925	2,235	2,478
Existing SF Detached	3,323	6,797	7,232	7,782
New SF Attached	1,348	2,632	3,082	2,914
Existing SF Attached	1,679	2,701	3,110	3,234
Condominiums ¹	1,887	4,211	6,452	4,934

Source: Research Division, Montgomery County Planning Department, STAR System.

¹ Separate, accurate breakdowns for new and existing condo sales are not available. Existing condo sales dominate.

Sales Housing Prices

The median sales price of new single family detached housing rose by more than 3.0 percent, from \$142,500 in 1984 to \$147,000 in 1985.

The median price of existing detached homes rose by more than 3.5 percent from \$113,000 in 1984 to \$117,000, in 1985.

The 1985 median price of \$90,500 for new townhomes was 12.4 percent greater than 1984's median of \$80,500.

Table 5

HOUSING COMPLETIONS BY POLICY AREA (1982-1985)

	1982	1983	1984	1985	Percent of Total			
					1982	1983	1984	1985
POTOMAC	114	201	435	485	3.24%	3.26%	5.17%	5.03%
DARNESTOWN/ TRAVILAH	24	28	72	118	0.68%	0.45%	0.86%	1.22%
POOLESVILLE	1	2	1	1	0.03%	0.03%	0.01%	0.01%
GOSHEN	27	23	31	81	0.77%	0.37%	0.37%	0.84%
DAMASCUS	145	257	176	91	4.12%	4.16%	2.09%	0.94%
CLARKSBURG	1	1	3	4	0.03%	0.02%	0.04%	0.04%
GERMANTOWN EAST	119	172	299	909	3.38%	2.79%	3.55%	9.44%
GERMANTOWN WEST	473	1,027	1,717	1,011	13.45%	16.64%	20.41%	10.49%
GAITHERSBURG EAST	728	1,193	1,005	1,813	20.71%	19.33%	11.95%	18.82%
GAITHERSBURG WEST	266	484	776	1,027	7.57%	7.84%	9.23%	10.66%
ROCKVILLE	102	205	143	128	2.90%	3.32%	1.70%	1.33%
N. BETHESDA	107	88	222	220	3.04%	1.43%	2.64%	2.28%
BETHESDA	175	158	105	236	4.98%	2.56%	1.25%	2.45%
SILVER SPRING/TAKOMA PARK	10	22	130	131	0.28%	0.36%	1.55%	1.36%
KENSINGTON/WHEATON	493	691	1,072	871	14.02%	11.19%	12.75%	9.04%
ROCK CREEK	144	160	86	145	4.10%	2.59%	1.02%	1.51%
OLNEY	217	337	365	421	6.17%	5.46%	4.34%	4.37%
PATUXENT	16	16	19	16	0.46%	0.26%	0.23%	0.17%
CLOVERLY	113	370	311	285	3.21%	5.99%	3.70%	2.96%
FAIRLAND/WHITE OAK	241	738	1,443	1,641	6.85%	11.96%	17.16%	17.03%
TOTAL COUNTY ¹	3,516	6,173	8,411	9,634	100.00%	100.00%	100.00%	100.00%

¹ These totals differ from County totals presented elsewhere due to completions which are not found in Policy Areas.

Source: Montgomery County Planning Board, Research Division, STAR system.

Table 6

POPULATION AND HOUSEHOLDS, 1960-1997
MONTGOMERY COUNTY

Year	Population	Households ¹	Change From Previous Year	
			Population	Households
1960	340,928	92,433	--	--
1961	353,400	96,300	12,472	3,867
1962	369,500	101,500	16,100	5,200
1963	386,900	107,100	17,400	5,600
1964	402,000	112,000	15,100	4,900
1965	418,900	117,600	16,900	5,600
1966	438,200	124,200	19,300	6,600
1967	466,300	134,300	28,100	10,100
1968	489,900	142,900	23,600	8,600
1969	508,200	149,700	18,300	6,800
1970	522,809	156,674	14,609	6,974
1971	530,900	161,100	8,091	4,426
1972	544,900	168,100	14,000	7,000
1973	561,100	176,000	16,200	7,900
1974	579,600	185,000	18,500	9,000
1975	589,400	191,400	9,800	6,400
1976	585,800	193,600	-3,600	2,200
1977	581,100	195,600	-4,700	2,000
1978	579,100	198,800	-2,000	3,200
1979	578,300	202,000	-800	3,200
1980	579,053	207,195	753	5,195
1981	582,500	211,800	3,447	4,698 ²
1982	586,500	216,800	4,000	5,000
1983	590,500	220,800	4,000	4,000
1984	604,000	227,500	13,500	6,700
1985 ³	620,000	235,900	16,000	8,400
1986 ³	635,000	245,400	15,000	9,500
1987 ⁴	657,500	255,900	22,500	10,500
1988 ⁴	672,500	265,400	15,000	9,500
1989 ⁴	687,500	271,400	15,000	6,000
1990 ⁴	695,000	276,400	7,500	5,000
1991 ⁴	702,200	281,400	7,200	5,000
1992 ⁴	709,400	286,400	7,200	5,000
1993 ⁴	716,600	291,400	7,200	5,000
1994 ⁴	723,800	296,400	7,200	5,000
1995 ⁴	731,000	301,400	7,200	4,450
1996 ⁴	738,200	305,300	7,200	3,900
1997 ⁴	745,400	309,200	7,200	3,900

¹ Occupied housing units.

² May through December.

³ Preliminary estimate subject to 1987 Census Update Review.

⁴ Intermediate Forecast.

Sources: 1960, 1970, and 1980 are April figures from the U.S. Census of Population and Housing. All other population and household estimates are for January, produced by the Montgomery County Planning Board, Research Division.

Appendix 3:

FORECAST

FORECAST - JOBS, HOUSING, PEOPLE

Introduction

Forecasting is a difficult art. It cannot be done with precision, and recalculation at frequent intervals is necessary. Forecasts, therefore, must be interpreted with care, depending on the degree of risk involved in the decision for which the forecast is consulted.

Three alternative forecasts are projected herein. Two of them, the high and the low, attempt to bracket between them the range of probable events. The intermediate one between them reflects an attempt to measure the most probable situation. (See Table 7).

The decision, about which of these three forecasts to use, should depend on the circumstances. For example, if the question concerns investment strategy, a prior decision should be made as to whether there is more to lose if growth occurs faster than the forecast, or more to lose if it occurs slower than the forecast. If the former, then one should focus one's calculations more on the high side of the intermediate forecast than on the low side, and vice versa.

Although those alternate forecasts are derived mathematically from the projection into the future of assumed values for key variables, they also are conditioned by comprehensive judgment about the probable interplay of events in the real world. To assist in this judgment, work pictures, called scenarios, have been drawn to represent the list of events that would need to occur in order for the numerical projections to be realistic.

In general, the economy has a greater influence on growth than any other element. Forecasting, therefore, tends to key off of assumptions about economic activities, and concentrate first on jobs, second on housing, and last on population. A short summary analysis for these three elements of growth is outlined below.

Job Forecast

Low Forecast: This assumes that the one or more of the presently observed weaknesses in our national economy breaks down even further, producing a ripple effect of two successive economic reversals during the next ten year period. The first is a comparatively minor setback occurring the second half of calendar 1987 and lasting through calendar 1988, with rapid recovery thereafter in 1989. The second, of more severe nature, occurs during the first half of 1990, for 18-24 months, with recovery less vigorous in nature.

Table 7

MONTGOMERY COUNTY LONG RANGE FORECASTS
(Proposed Revisions to The Round 4.0 Cooperative Forecast)

	1980*	1986**	1990	2000
<u>Persons</u>				
High			710,000	800,000
Intermediate	579,000	635,000	695,000	767,000
Low			670,000	715,000
<u>Households</u>				
High			281,000	338,000
Intermediate	206,793	245,400	276,400	320,000
Low			270,100	302,000
<u>Employment</u>				
High			425,000	550,000
Intermediate	302,000	375,000	411,000	501,000
Low			405,000	457,500

Source: Research Division, Montgomery County Planning Department

Note: These forecasts are revisions from the COG Round 3.5 Co-operative Forecasting effort. While they represent the current best judgment of the MCPB Staff, they will remain draft forecasts until the completion of the COG Round 4 effort in June, 1987.

* April, 1980

** Jan., 1986

The first downturn is triggered by a combined slowdown in homebuilding activity and reduced consumer spending, sufficient to push this current slow-growth national economy, already burdened by record-high consumer debt levels, into a recession.

The second results from a combined and synergistic faltering within several of the existing weaker links and elements of the national economy, which severely limit the ability of the economy to come back from the original downturn. Some possibilities are:

.... Foreign depositors in major U.S. banks, made uneasy by the above, make large-scale withdrawals from these banks, significantly reducing their credit capacities.

.... With high priced credit and with apprehension over a shaky economic and financial condition, consumers defer purchases of durables and housing, causing manufacturing and construction sector unemployment. Firms indefinitely postpone plans for plant and equipment, aggravating further the unemployment condition.

.... Enacted trade protectionism legislation, causes foreign retaliation, further undercutting the nation's potential for export of its agricultural and manufactured products.

.... Firms imperiled by the recession resort to mergers, in turn, causing large scale layoffs in redundant management personnel.

High Forecast: This assumes a generally bullish economic condition. It assumes that the strength of the service economies of the Region, and Montgomery County, result in general immunity from national economic fluctuations. Private employment gains in the County average approximately 12,500 at-place jobs a year over the 10 year period, below the pace achieved during calendar 1984-1985, but almost 40 percent higher than the average annual rate projected for the intermediate level forecast. Private (non-governmental) growth is the major driver of the economy, with continuing emphasis upon the business service sector. Some of the additional service sector jobs are comparatively lower paying, but there are a healthy mixture of high-tech jobs linked to growth in communications, bio-tech and computer services. The high rate of new job growth continues to be supported by an extraordinarily high level of female work force participation, in turns contributing to steadily rising household incomes

Intermediate Forecast: This assumes a 10-year average growth of 9,000 jobs a year, below the actual 1984-1985 rate, but appreciably higher than the approximately 7,000 average growth gain of the late 1970's. This forecast relies upon continued health in the national and regional economies. It is a lower rate of growth than our most recent experience but is more on line with our long term growth rate. As in the high forecast, major job growth will occur in the service sector, with an attendant mixture of higher paying high-tech jobs.

10-Year Job Forecast (Most Probable)

The intermediate, or most probable, employment growth scenario for Montgomery County suggests an average annual 9,000 employment gain over the 10-year forecast period, FY 87-96. This is below the 11,250 average gain previously predicted for the shorter FY 87-88 period in the Short Term Traffic Alleviation Policy Report of June, 1986. (i.e. Interim Growth Policy).

The above intermediate level projection compares with a low growth annual estimate of 6,000 jobs and a high growth estimate of 12,500.

Table 8

COUNTY-WIDE EMPLOYMENT FORECAST, FY87 - FY91, FY87 - FY93, AND FY87 - FY97
 Comparison to Previous Four, Six, and Ten Year Periods
 (Number of At Place Jobs)

	FORECAST FY87 - FY91 <u>(4 Years)</u>	FORECAST FY87 - FY93 <u>(6 Years)</u>	FORECAST FY87 - FY97 <u>(10 Years)</u>
<u>HIGH</u> "maximum foreseeable" (Average Annual Rate)	425,000 (12,500)	450,000 (12,500)	500,000 (12,500)
<u>INTERMEDIATE</u> "most probable" (Average Annual Rate)	411,000 (9,000)	429,000 (9,000)	465,000 (9,000)
<u>LOW</u> "minimum foreseeable" (Average Annual Rate)	405,000 (7,500)	414,000 (6,500)	435,000 (6,000)
<hr/>			
Actual Growth Previous 4, 6, and 10 Yrs. (Average Annual Rate)	64,482 (16,120)	73,277 (12,213)	118,000 (11,800)

Source: Research Division, Montgomery County Planning Department.

Note: Average Annual Rates are rounded.

Unlike previous employment forecasts, the creation of additional work space has not been automatically and directly translated into counterpart job growth. Account has been taken of the surplus of unoccupied new space and also of the increase in the total inventory of vacant space. Reliance has been placed upon application of realistic space absorption rates; an objective assessment of the County's share of total regional employment growth; and, for the longer period, impacts of potential large-scale national economic fluctuations.

The following factors, it is believed, will support comparatively healthy annual employment growth reflected in the intermediate projections:

1. The County's at-place jobs are largely found in its service sector which supplies 40 percent of the County's employment base. The service sector, in turn, constitutes the most rapidly growing part of the national and local economies.

Numerous "high tech" occupations are provided within the service sector, and the high educational achievement of County resident households will attract employers seeking experienced and trainable employees. Retailing, will have its enlargement supported by the County's high income levels and also by its rapid physical expansion, as new residential neighborhoods demand convenience shopping facilities.

2. The County will continue to benefit from its metro area location, adjacent to the national capital and to the business of government, including a gigantic defense-related job infrastructure, for which continuing high levels of budget allocations are anticipated.

- 3 The in-place presence of an inventory of modern commercial and industrial space will be able to serve the expansion and upgrading needs of current County firms and can also serve the requirements of in-migrant companies. The current supply of such space will keep rents competitive for several years.

Housing Forecast

Montgomery County is enjoying its strongest housing construction boom in over 20 years. High levels of regional and local employment growth, in addition to lowered mortgage interest rates, an affordable housing mix dominated by lower cost town-houses, and a substantial rental housing production effort supported by below market rate financing have undergirded this current boom.

Ongoing housing production momentum will support high level outputs through calendar 1987. Thereafter, the following influences, both external and internal, suggest that County housing production will retreat to levels below current record amounts. These influences include:

1. Recent high levels of new rental housing production will be very substantially cut back by the stringent limits recently imposed upon revenue bond financing activities by the new Tax Reform Legislation. Industrial revenue bond authorizations for the State of Maryland, when apportioned to separate counties throughout the state, probably will support financing of no more than 200 additional rental units a year in Montgomery County. Even this amount is conjectural, in as much as new rental housing proposal will have to compete with non-housing ventures, such as new sports arenas and ballparks.
2. The housing demand derived from new household formations among the County's baby boomers, is diminishing as this age group matures. Much of the recent demand for lower priced housing has stemmed from the younger members of this demographic group, and recent high-level production has satisfied much of it.
3. Prospective demand for additional new housing production will stem primarily from a trade-up market, for whom new home purchase can be a highly deferrable option, conditioned by the economic climate, strength of the resale market, and availability of reasonably priced mortgage funds.
4. There exist reasonable prospects for a rise in mortgage interest rates, which would make inroads into housing affordability. The pressure for such increase would possibly stem from increased federal borrowings to service a growing federal debt, with other credit demand to support plant expansions and productivity improvements, and also to provide high levels of consumer credit.
5. There is the possibility of an adverse national economic setback impacting the County. Depending upon their length and severity, these setbacks could substantially depress the purchase of all durable consumer goods, especially housing.

CONTRACT MORTGAGE RATE ASSUMPTIONS
FY 87 - FY 91
(Fixed Term, 15+ Years)

<u>Current*</u>	<u>High Forecast</u>	<u>Intermediate Forecast</u>	<u>Low Forecast</u>
9.5 to 10.5%	8.5 to 9.5%	9.5 to 10.5%	10.5 to 11.5

* Range of current contract rates as reported by The Federal Home Loan Bank Board between early December 1985 to early May 1986. May 1986 rate was 9.7%.

The Ten Year Forecast

The following sets forth housing completion forecasts for FY 87-90; FY 91-96; and the total period FY 87-96 period. These are presented, as well, in terms of "high," "intermediate," and "low" projections, with the intermediate representing the most probable level.

The foregoing housing gain projections have attempted to take the following into account:

....Completion of revenue bond financed rental housing in near construction and under construction status will yield 1987 rental production as high as 1986's. Thereafter, completions will drop off as the remainder of the housing production pipeline becomes exhausted. New single family production will also register a decline, but not as sharp as that of rental housing. The decline will be associated with the anticipated cyclical downturn and, also, to a change in production when demand shifts to lesser amounts of trade-up housing.

....The intermediate and low scenarios reflect a sharp drop in housing production from the current housing boom and a possible 1990-1991 recession, when consumer apprehension could result in diminished demand for all consumer durables.

....The declining amounts of new housing output in the six year forecast FY 87-93 correspond to the estimated decline (intermediate level) in rate of household gains, falling from an average annual increase of 7,000 between FY 87-91 and to 5,000 for the subsequent projection period of FY 91-93.

....Related to the immediately foregoing, there will be comparatively, reduced demand within the 25-34 age group, which constitutes the largest new household formation category. In 1985 (intermediate level) that age group accounted for 17.1 percent of total County population. It is expected to drop to 16.4 percent in 1990 and to only 11.7 percent in 1995. A parallel decrease in new housing demand to satisfy increased space requirements can be expected.

Table 9

INTERMEDIATE JOBS FORECAST
BY POLICY AREA

Policy Areas	Estimated (Preliminary) July 1, 1986 (FY 87)		Forecast (4 Years) FY 87 - FY 91		Forecast (6 Years) FY 87 - FY 93	
	Jobs	Percent Share	Job Growth	Percent Share	Job Growth	Percent Share
Potomac	11,200	3.0%	800	2.2%	1,000	1.9%
Damascus	2,900	0.8%	100	0.3%	200	0.4%
Germantown East	2,700	0.7%	1,500	4.2%	2,300	4.3%
Germantown West	5,500	1.5%	1,700	4.7%	2,700	5.0%
Gaithersburg East	33,600	9.0%	6,500	18.1%	9,100	16.9%
Gaithersburg West	15,000	4.0%	5,100	14.2%	7,600	14.1%
Rockville	60,900	16.2%	1,700	4.7%	3,000	5.6%
North Bethesda	57,800	15.4%	3,300	9.2%	5,300	9.8%
Bethesda	79,500	21.2%	4,000	11.1%	6,500	12.0%
Silver Spring/ Takoma Park	40,000	10.7%	4,100	11.4%	5,800	10.7%
Kensington/Wheaton	33,600	9.0%	2,600	7.2%	3,700	6.9%
Olney	4,500	1.2%	200	0.6%	300	0.6%
Cloverly	700	0.2%	200	0.6%	300	0.6%
Fairland/White Oak	22,300	5.9%	3,400	9.4%	5,000	9.3%
Rural Policy Areas	4,800	1.3%	800	2.2%	1,200	2.2%
TOTAL COUNTY	375,000	100.0%	36,000	100.0%	54,000	100.0%

Source: Research Division, Montgomery County Planning Department.

The above projections have been made without regard for the potential constraints which might be imposed by the Adequate Public Facilities Ordinance. They are essentially premised upon demographic, economic, and financial market influences.

....Future dependence upon trade-up demand to support new sales housing production must take into account the limitations of that market. Their characteristically more mature ages are associated with reduced residential mobility. As indicated, trade up can be an infinitely postponable market option, dependent upon perceived conditions of strength of the resale market, availability of mortgage funds, and also responsive to potential, future changes in the income tax law.

The above projections have been made without regard for the potential constraints which might be imposed by the Adequate Public Facilities Ordinance. They are essentially premised upon demographic, economic and financial market influences.

Table 10

COUNTY-WIDE HOUSING FORECAST, FY87 - FY91, FY87 - FY93, AND FY87 - FY97
Comparison to Previous Four, Six, and Ten Year Periods
(Number of Housing Units)

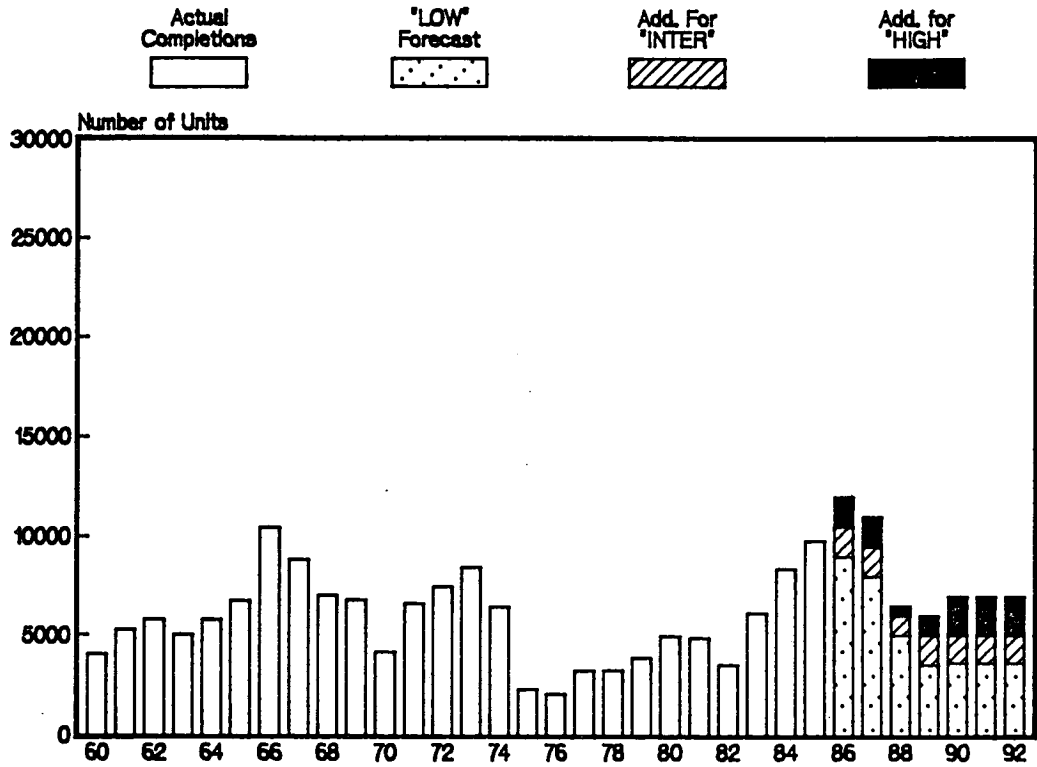
	FORECAST FY87 - FY91 (4 Years)	FORECAST FY87 - FY93 (6 Years)	FORECAST FY87 - FY97 (10 Years)
<u>HIGH</u> "maximum foreseeable" (Average Annual Rate)	33,500 (8,400)	47,500 (8,000)	72,000 (7,200)
<u>INTERMEDIATE</u> "most probable" (Average Annual Rate)	28,000 (7,000)	38,000 (6,400)	56,500 (5,700)
<u>LOW</u> "minimum foreseeable" (Average Annual Rate)	23,000 (5,700)	30,000 (5,000)	43,000 (4,300)
<hr/>			
Actual Growth Previous 4, 6, and 10 Yrs. (Average Annual Rate)	27,600 (6,900)	37,400 (6,200)	49,800 (5,000)

Source: Research Division, Montgomery County Planning Department.

Note: Average Annual Rates are rounded.

MONTGOMERY COUNTY HOUSING UNIT COMPLETIONS

(1960-1985 Actual, and 1986-1992 Forecast)



FOR THE FORECAST, TOTAL BAR IS HIGH FORECAST

COMPARISON OF FY87-91 FORECASTS (High, Intermediate, & Low) TO PAST GROWTH PERIODS — Housing Units, Montgomery County

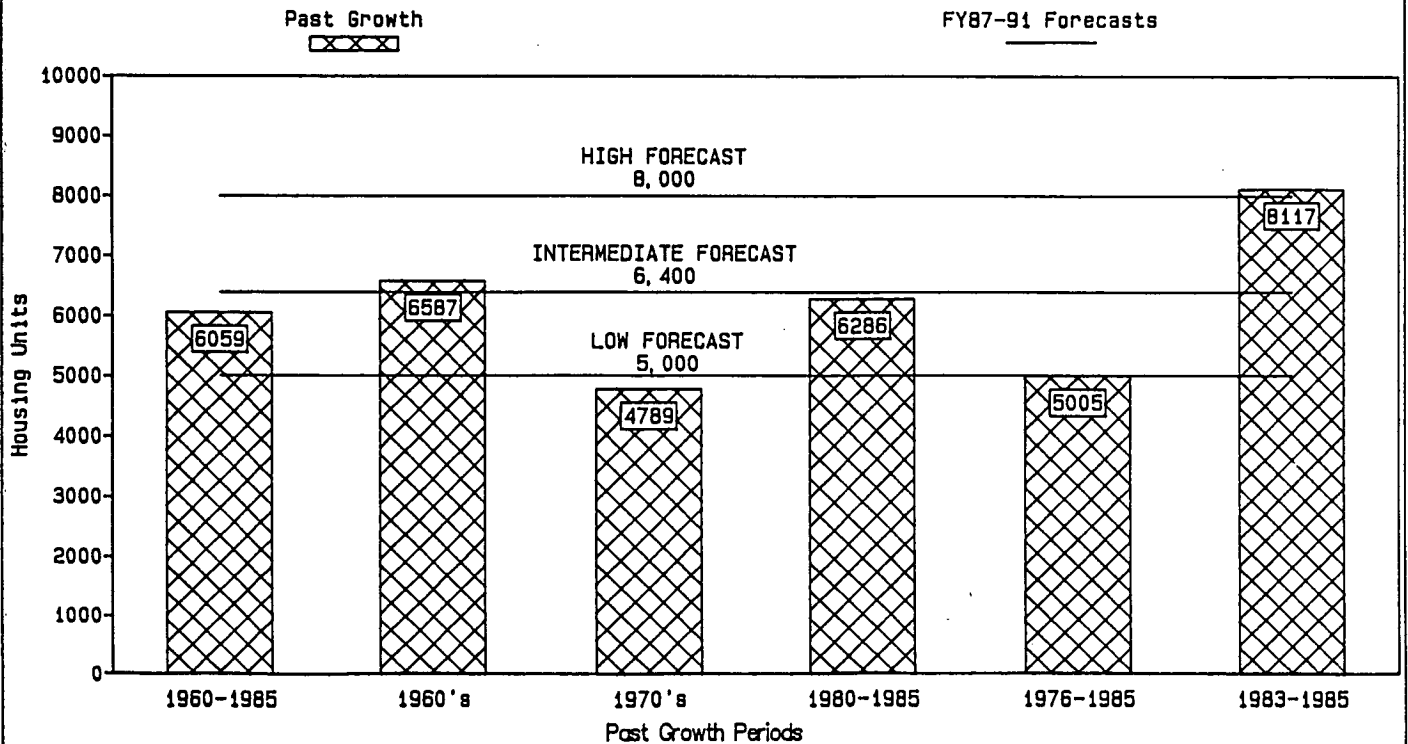


Table 11

INTERMEDIATE HOUSEHOLD FORECAST
BY POLICY AREA

Policy Areas	Estimated (Preliminary) July 1, 1986 (FY 87)		Forecast (4 Years) FY 87 - FY 91		Forecast (6 Years) FY 87 - FY 93	
	Housing Units	Percent Share	Housing Unit Growth	Percent Share	Housing Unit Growth	Percent Share
Potomac	13,200	5.3%	14,800	5.3%	15,300	5.3%
Damascus	2,100	0.8%	2,800	1.0%	3,200	1.1%
Germantown East	3,300	1.3%	4,500	1.6%	5,200	1.8%
Germantown West	7,400	3.0%	11,700	4.2%	13,600	4.7%
Gaithersburg East	24,700	9.9%	28,400	10.2%	30,000	10.4%
Gaithersburg West	10,700	4.3%	13,400	4.8%	14,200	4.9%
Rockville	16,200	6.5%	16,700	6.0%	17,000	5.9%
North Bethesda	11,500	4.6%	12,800	4.6%	13,300	4.6%
Bethesda	33,800	13.5%	34,900	12.5%	35,200	12.2%
Silver Spring/ Takoma Park	32,200	12.8%	32,600	11.7%	32,900	11.4%
Kensington/Wheaton	51,300	20.5%	54,100	19.4%	54,900	19.0%
Olney	6,100	2.4%	8,100	2.9%	8,400	2.9%
Cloverly	4,300	1.7%	5,000	1.8%	5,500	1.9%
Fairland/White Oak	18,900	7.5%	22,900	8.2%	23,700	8.2%
Rural Policy Areas	15,000	6.0%	16,200	5.8%	16,500	5.7%
TOTAL COUNTY	250,700	100.0%	278,900	100.0%	288,900	100.0%

Source: Research Division, Montgomery County Planning Department.

Population Forecast

The County's population is estimated at 646,000 for January 1, 1986. This represents a 67,000 increase since the 1980 Census estimate, and an average annual growth of 11,000 persons per year.

This increase in population, which occurred within a 6 year time span, is greater than the 56,000 increase for the entire 1970 decade. Population is increasing at a faster rate than previously because of the following three factors. First, in the 1980's, births are on average between 1500 to 3000 greater per year than the 1970's. Secondly, the number of households is increasing at a 20 percent faster rate than it did in the 1970's. Thirdly, average household size is declining at a significantly slower rate.

During the 1970's "baby boomers" accelerated the rate of average household size decline as they became adults and left home to form their own households. This "leaving the nest" phenomenon is no longer a major contributor to average household size decline, since the young adult population charts are growing smaller. A slower rate of average household size decline will mean that a given level of housing growth will result in a greater net increase in population than in the 1970's.

Population growth is expected to remain at relatively high levels during the next ten years. The number of births is expected to range around 10,000 per year. In Montgomery County a much larger percentage of children are born to women aged over 30 than elsewhere. Thus it is likely that Montgomery County's current upward trend in births will have a longer duration than the national upswing.

There is a strong probability that births will remain at high levels for 10 or more years. This will have a direct and dramatic effect on school enrollments for perhaps the next 15 or 20 years. Recent increases in school enrollments can be tied directly to the increase in births which has been continuous since 1979. In 1979 births increased to 7,026 from 6,672 in 1978. Five years later (1984) total kindergarten enrollment in Montgomery County increased for the first time in over 10 years. In 1985 the number of births were 9,944 which should lead to a historic high kindergarten enrollment in 1990.

Housing growth is expected to remain relatively strong, although probably not at the high rates of recent years. The current housing boom was brought about by a dramatic decline in mortgage interest rates which relieved "pent up" demand and has likely borrowed from future demand. The "baby boomers" are now themselves in the peak period of the "nesting" lifecycle. They are forming families and moving into larger suburban homes. Montgomery and Fairfax Counties have proven to be desirable locations for large number of these households. Together, the two counties account for approximately 70 percent of the Regions'

new housing growth. In addition, Maryland Department of State Planning projects that Montgomery County will account for approximately 25 percent of the State's housing growth during the next 5 years.

Table 12

1986 POPULATION AND HOUSEHOLD ESTIMATES
WITH PROJECTIONS TO 1997
Montgomery County, Intermediate Forecast

	<u>Population</u>		<u>Households</u>	
	Jan. 1st	July 1st	Jan. 1st	July 1st
1986	635,000	646,000	245,400	250,700
1987	657,500	665,000	255,900	261,200
1988	672,500	680,000	265,400	268,400
1989	687,500	691,000	271,400	273,900
1990	695,000	698,500	276,400	278,900
1991	702,000	706,000	281,400	283,900
1992	709,400	713,000	286,400	288,900
1993	716,600	720,000	291,400	293,900
1994	723,800	727,500	296,400	298,900
1995	731,000	734,500	301,400	303,350
1996	738,200	741,800	305,300	307,250
1997	745,400	749,000	309,200	311,150

Source: Research Division, Montgomery County Planning Department.

The above projections were made without regard for the potential constraints which might be imposed by the Adequate Public Facilities Ordinance. They are essentially premised upon demographic, economic, and financial market influences.

Table 13

MONTGOMERY COUNTY TOTAL

1985

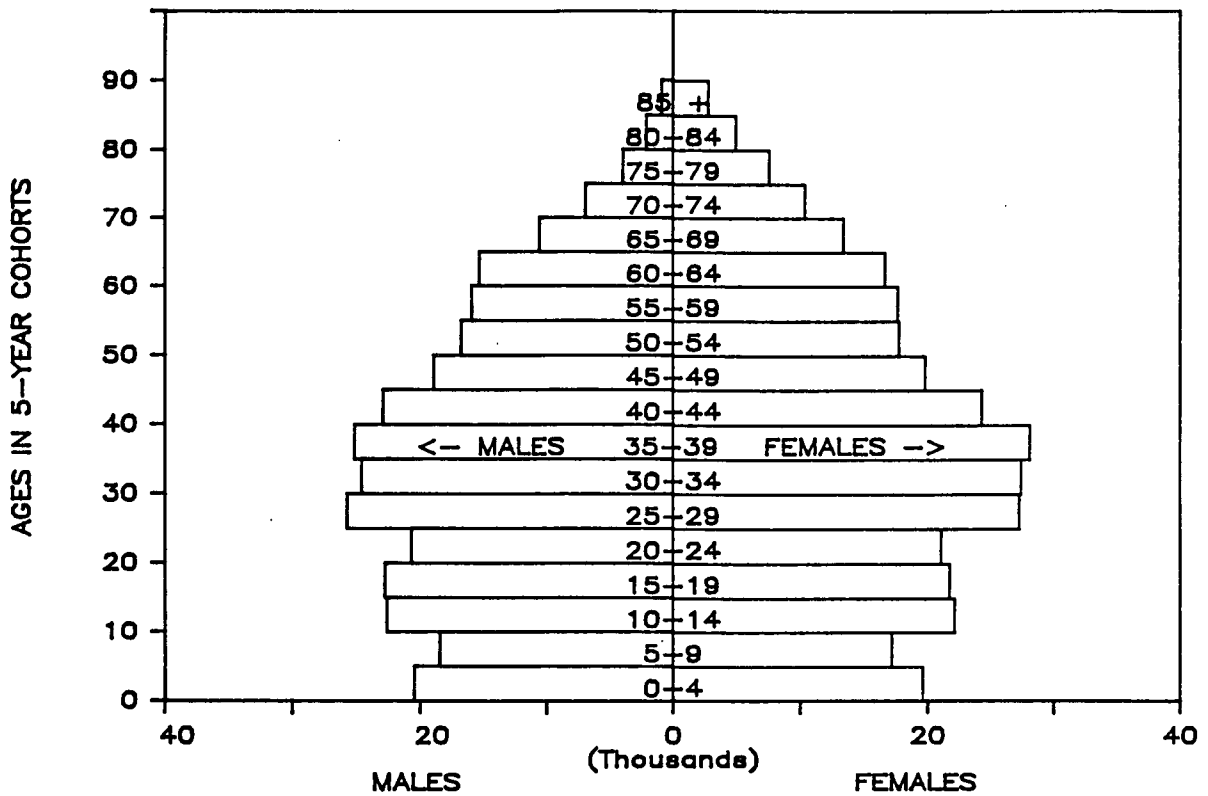
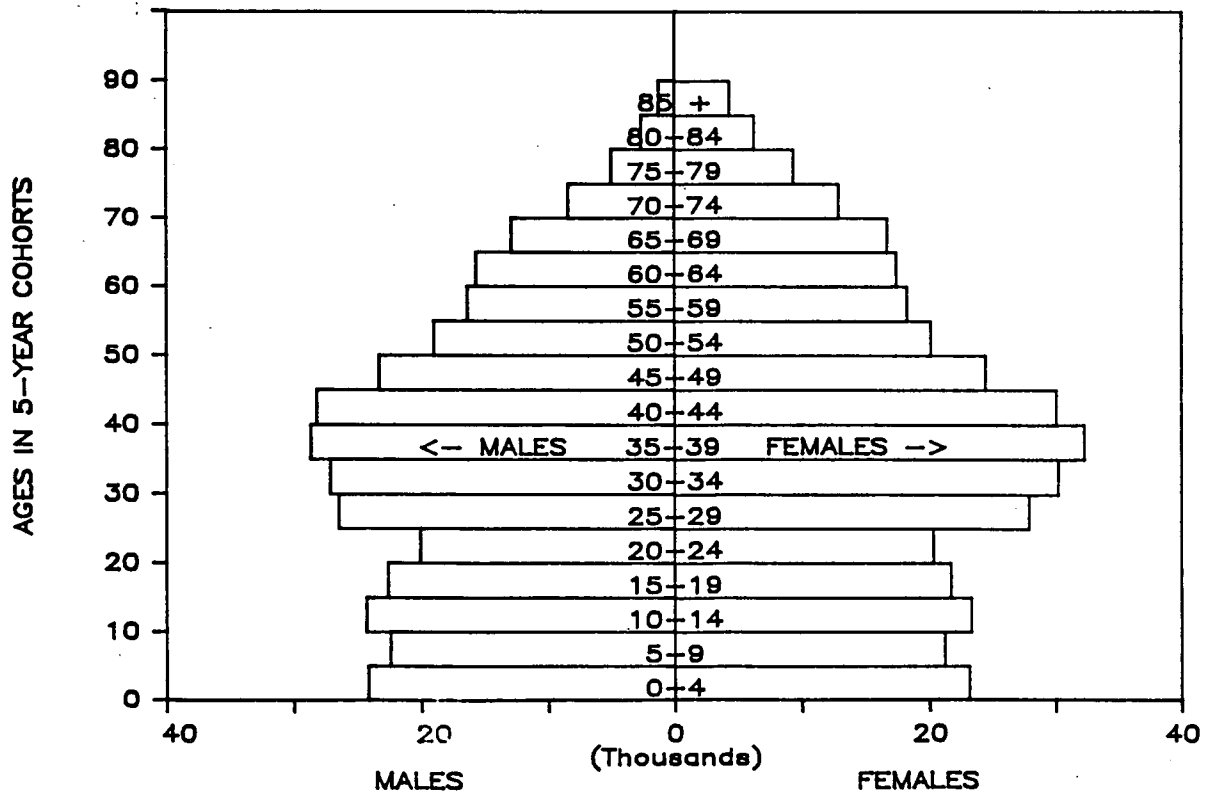


Table 14

1990 INTERMEDIATE GROWTH RATE



MONTGOMERY COUNTY TOTAL

1990 INTERMEDIATE GROWTH RATE

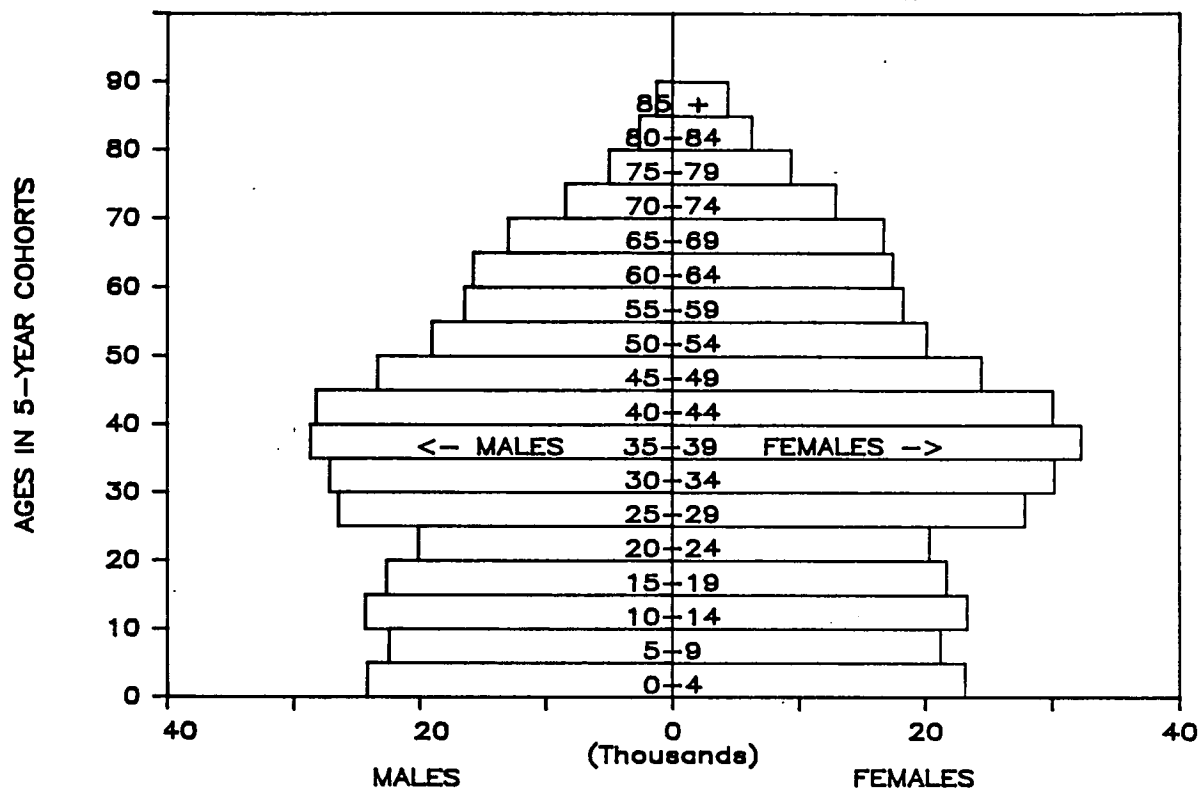


Table 15

1995 INTERMEDIATE GROWTH RATE

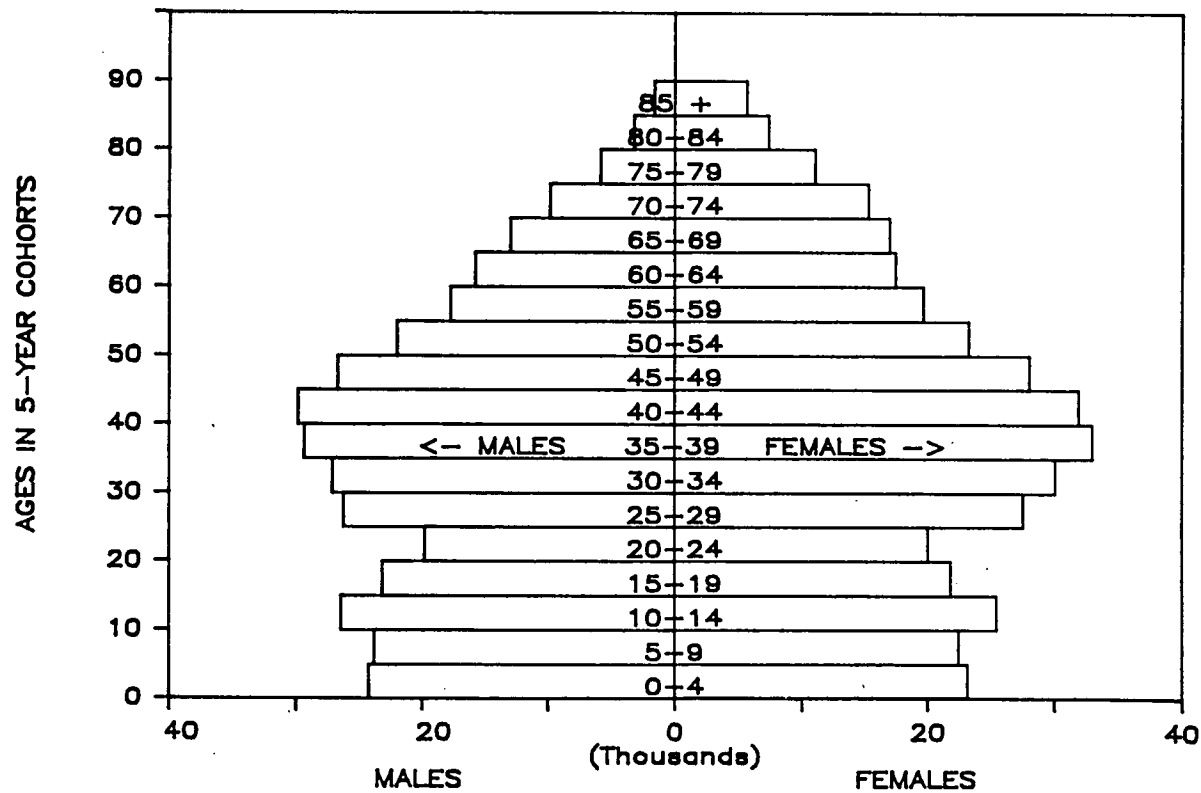


Table 16

THE MONTGOMERY COUNTY PLANNING BOARD DEMOGRAPHIC MODEL

ANNUAL GROWTH BETWEEN 1985 AND 1990
(HOUSEHOLD POPULATION BY AGE)
INTERMEDIATE 9/86 10/15/86

PLAN AREA - MONTGOMERY COUNTY TOTALS

AGE GROUPS	1985	1986	1987	1988	1989	1990
0-4	40060.	41513.	43692.	45145.	46598.	47324.
5-9	35584.	37200.	39623.	41239.	42854.	43662.
10-14	44698.	45284.	46163.	46750.	47336.	47629.
15-19	44452.	44428.	44403.	44379.	44355.	44331.
20-24	41728.	41470.	41212.	40954.	40696.	40438.
25-29	52926.	53213.	53645.	53933.	54221.	54365.
30-34	51968.	53041.	54650.	55723.	56797.	57333.
35-39	53197.	54755.	57092.	58650.	60207.	60986.
40-44	47189.	49413.	52748.	54972.	57195.	58307.
45-49	38743.	40557.	43277.	45091.	46904.	47811.
50-54	34554.	35482.	36873.	37800.	38727.	39191.
55-59	33653.	33860.	34171.	34378.	34585.	34689.
60-64	32028.	32263.	32616.	32851.	33086.	33203.
65-69	23994.	25137.	26853.	27997.	29140.	29712.
70-74	17337.	18146.	19360.	20170.	20979.	21383.
75-79	11517.	12101.	12978.	13563.	14148.	14440.
80-84	7081.	7447.	7996.	8362.	8728.	8910.
85+	3690.	4090.	4688.	5087.	5486.	5686.
TOTAL	614400.	629400.	651900.	666900.	681900.	689400.
GROUP QUARTERS	5600.	5600.	5600.	5600.	5600.	5600.
TOT POPULATION	620000.	635000.	657500.	672500.	687500.	695000.
NET CHANGES		15000.	22500.	15000.	15000.	7500.

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THE MONTGOMERY COUNTY PLANNING BOARD DEMOGRAPHIC MODEL

ANNUAL GROWTH BETWEEN 1990 AND 1995
(HOUSEHOLD POPULATION BY AGE)
INTERMEDIATE 9/86 10/15/86

PLAN AREA = MONTGOMERY COUNTY TOTALS

AGE GROUPS	1990	1991	1992	1993	1994	1995
0-4	47324.	47330.	47335.	47341.	47346.	47351.
5-9	43662.	44163.	44664.	45165.	45666.	46168.
10-14	47629.	48473.	49316.	50160.	51004.	51847.
15-19	44331.	44447.	44563.	44679.	44795.	44911.
20-24	40438.	40308.	40178.	40048.	39918.	39788.
25-29	54365.	54239.	54114.	53989.	53864.	53738.
30-34	57333.	57300.	57267.	57234.	57201.	57169.
35-39	60986.	61254.	61522.	61789.	62057.	62324.
40-44	58307.	58995.	59683.	60370.	61058.	61746.
45-49	47811.	49195.	50579.	51963.	53347.	54731.
50-54	39191.	40388.	41586.	42783.	43981.	45178.
55-59	34689.	35230.	35772.	36314.	36856.	37398.
60-64	33203.	33207.	33210.	33214.	33217.	33221.
65-69	29712.	29754.	29796.	29838.	29880.	29922.
70-74	21383.	22133.	22883.	23632.	24382.	25132.
75-79	14440.	14935.	15429.	15923.	16418.	16912.
80-84	8910.	9251.	9591.	9932.	10272.	10613.
85+	5686.	5999.	6312.	6625.	6938.	7251.
TOTAL	689400.	696600.	703800.	711000.	718200.	725400.
GROUP QUARTERS	5600.	5600.	5600.	5600.	5600.	5600.
TOT POPULATION	695000.	702200.	709400.	716600.	723800.	731000.
NET CHANGES		7200.	7200.	7200.	7200.	7200.

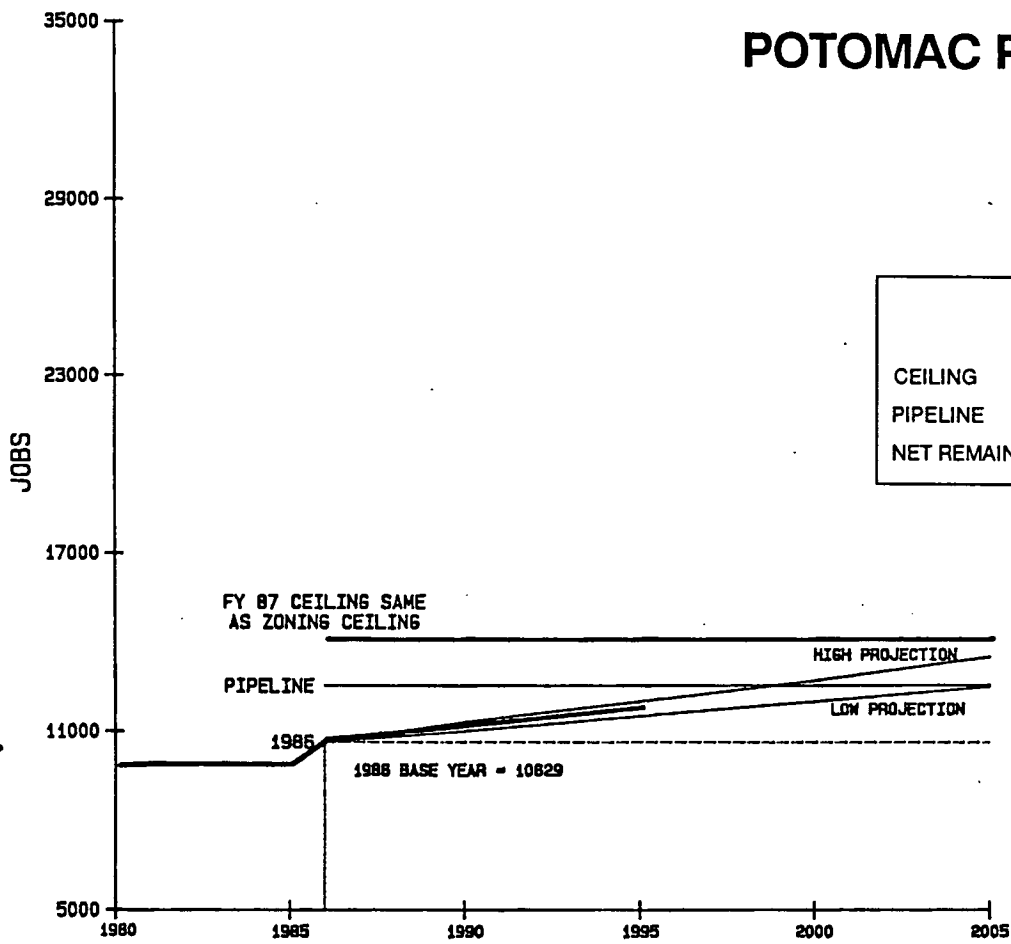
A-43

Appendix 4:

**POLICY
AREA
STAGING
CHARTS**

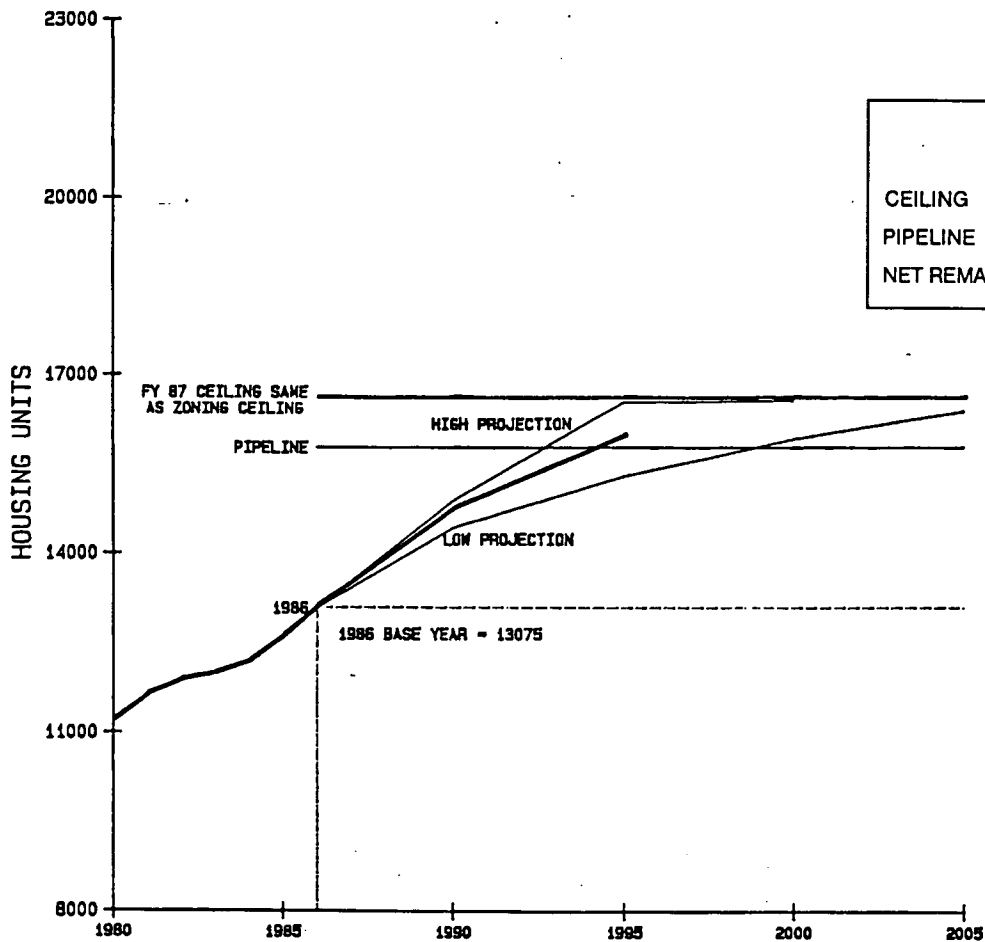
POTOMAC POLICY AREA

JOBS



	FY 87	FY 88	
		LOW	HIGH
CEILING	3,371	3,371	3,371
PIPELINE	1,897	1,897	1,897
NET REMAINING	1,474	1,474	1,474

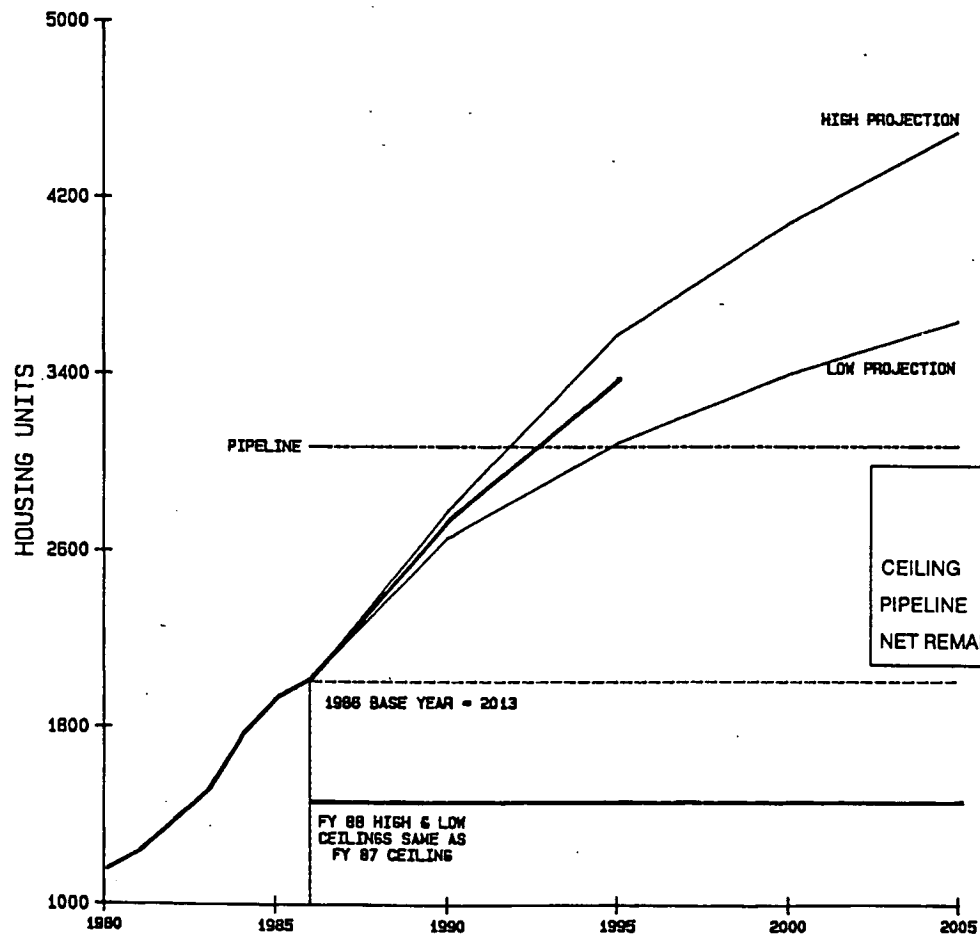
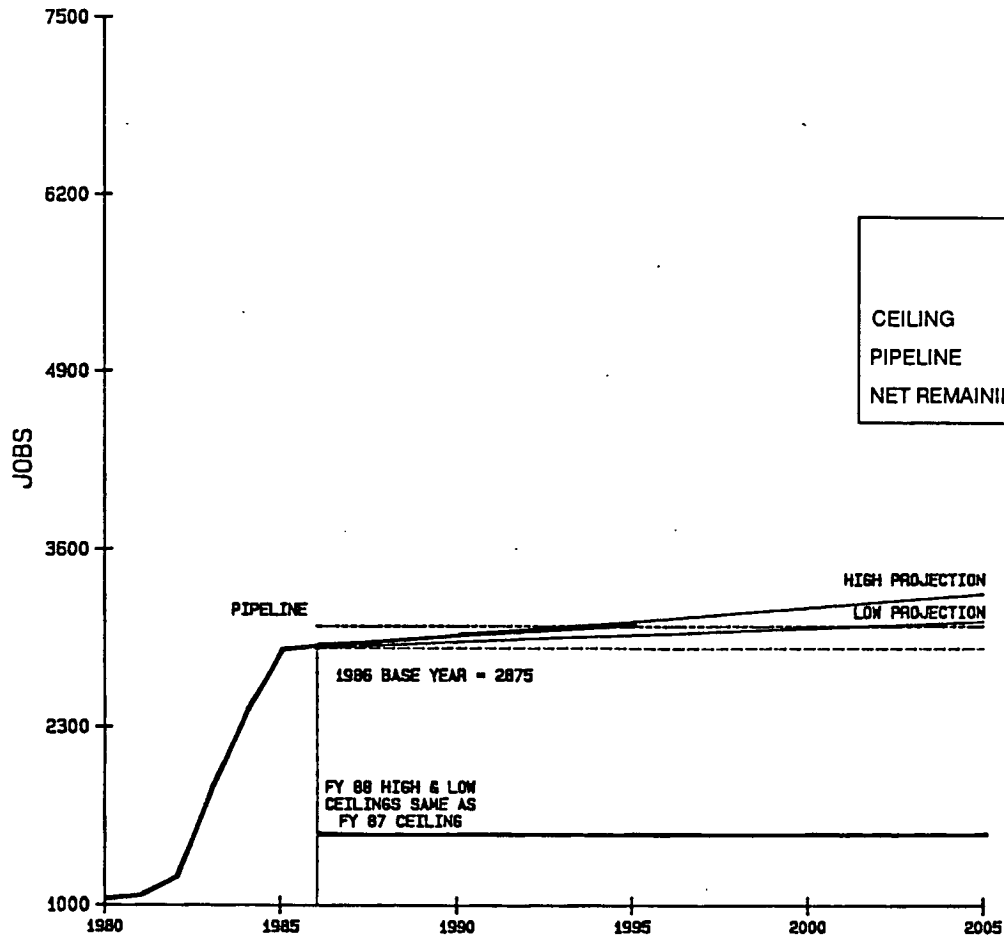
HOUSING



	FY 87	FY 88	
		LOW	HIGH
CEILING	3,925	3,925	3,925
PIPELINE	2,864	2,864	2,864
NET REMAINING	1,061	1,061	1,061

DAMASCUS POLICY AREA

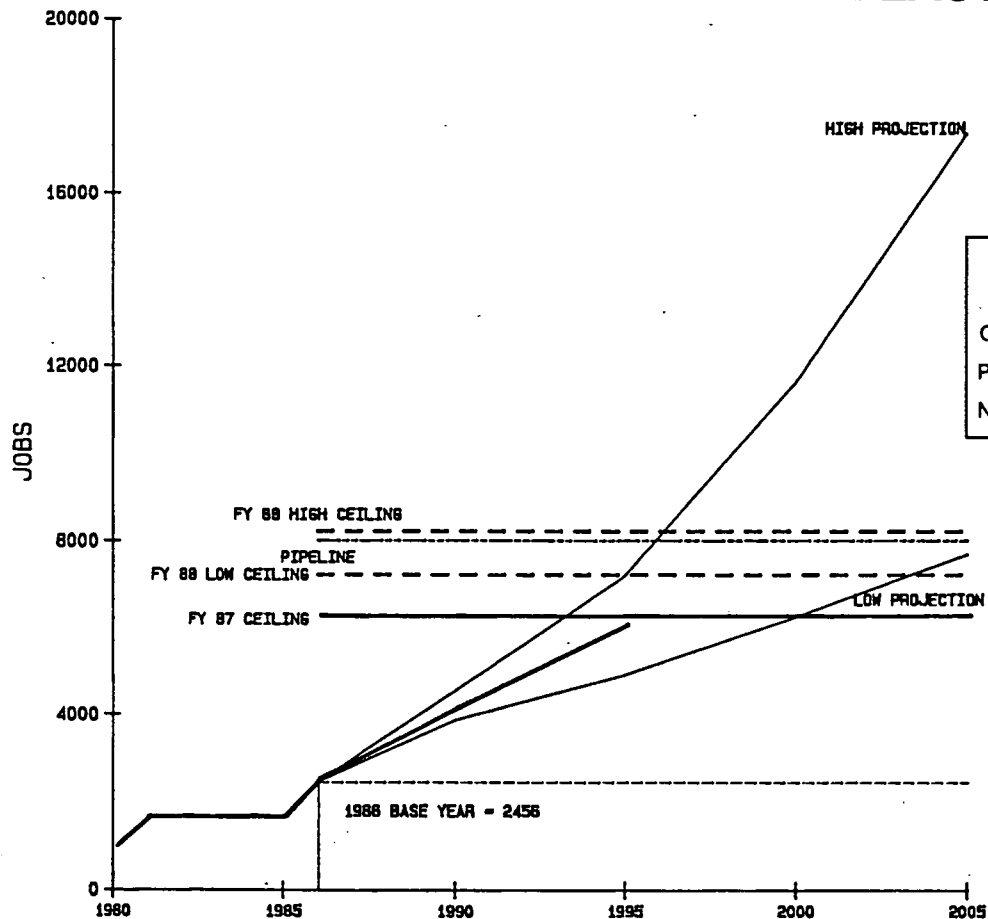
JOBS



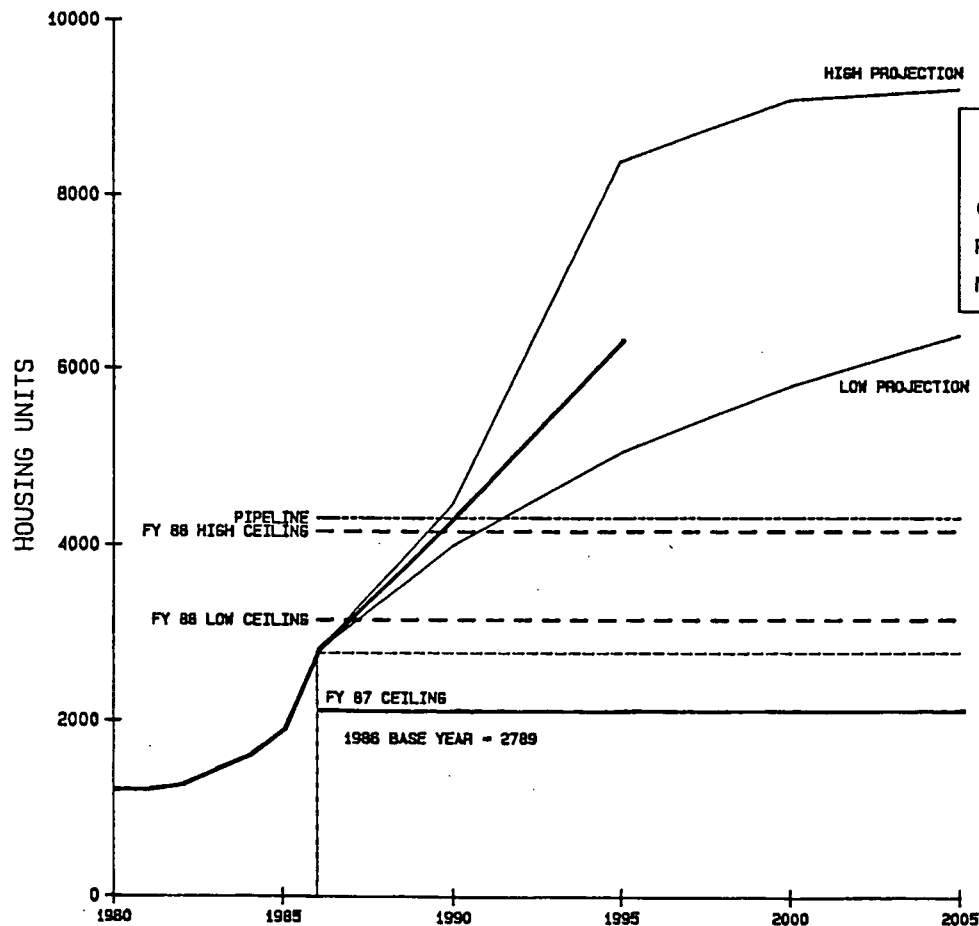
HOUSING

GERMANTOWN EAST POLICY AREA

JOBS

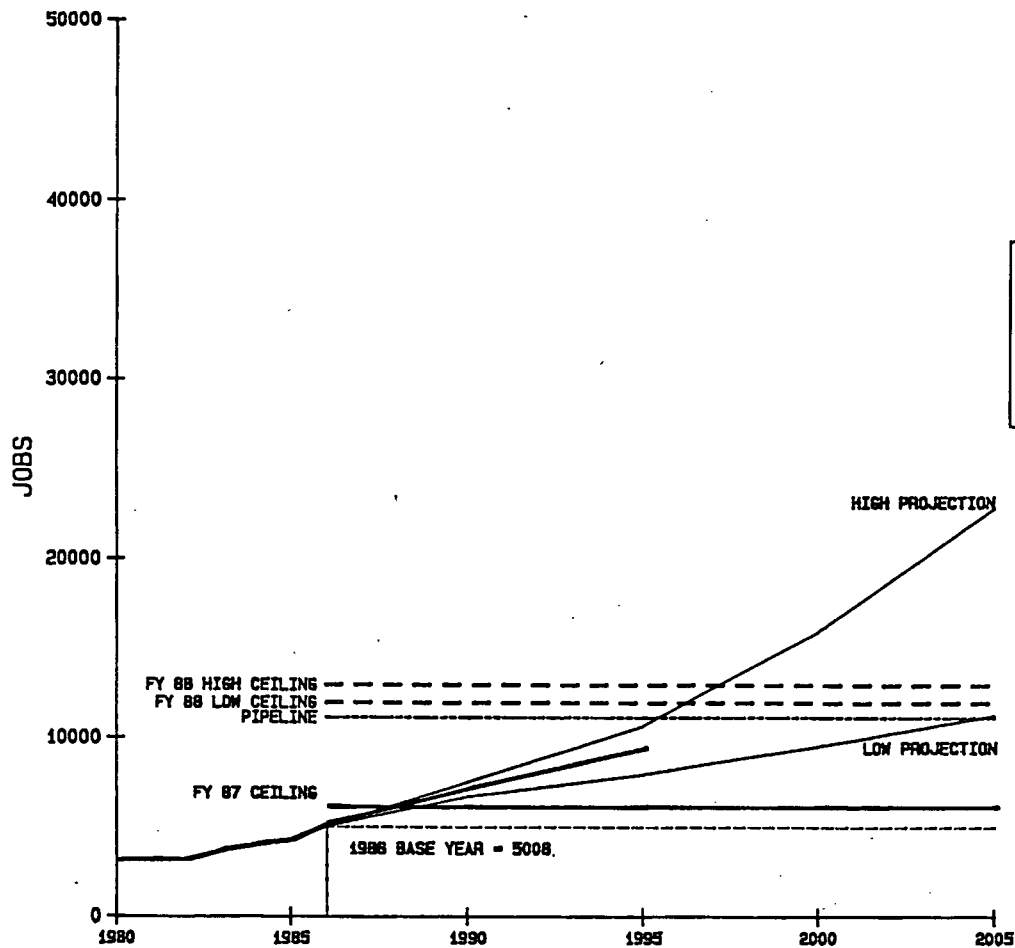


HOUSING



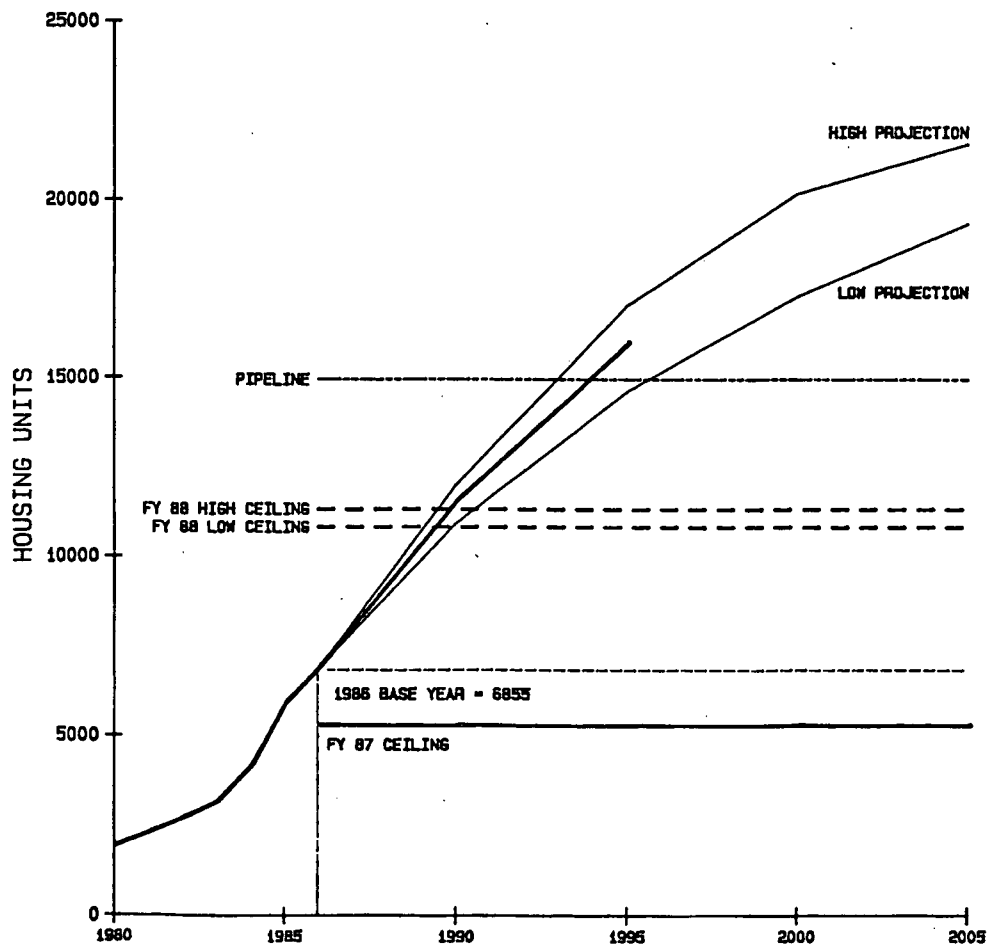
GERMANTOWN WEST POLICY AREA

JOBS



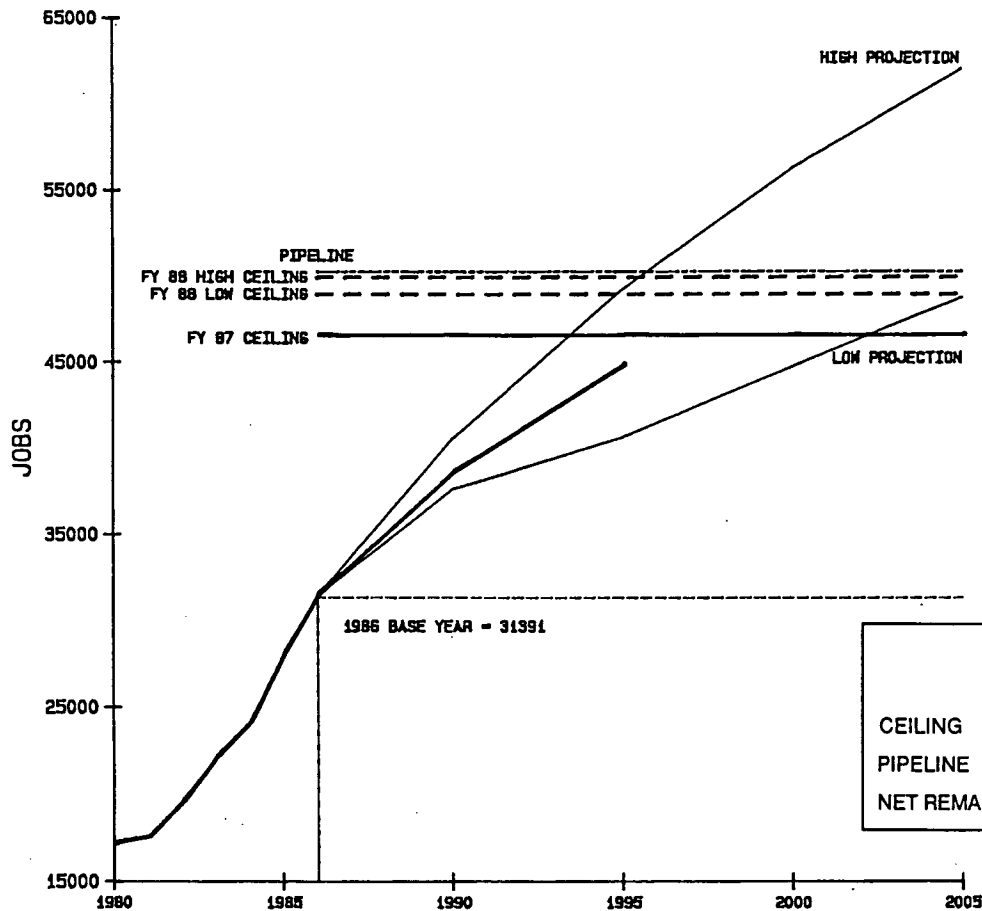
	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	906	6,906	7,906
PIPELINE	6,090	6,090	6,090
NET REMAINING	(5,184)	816	1,816

HOUSING

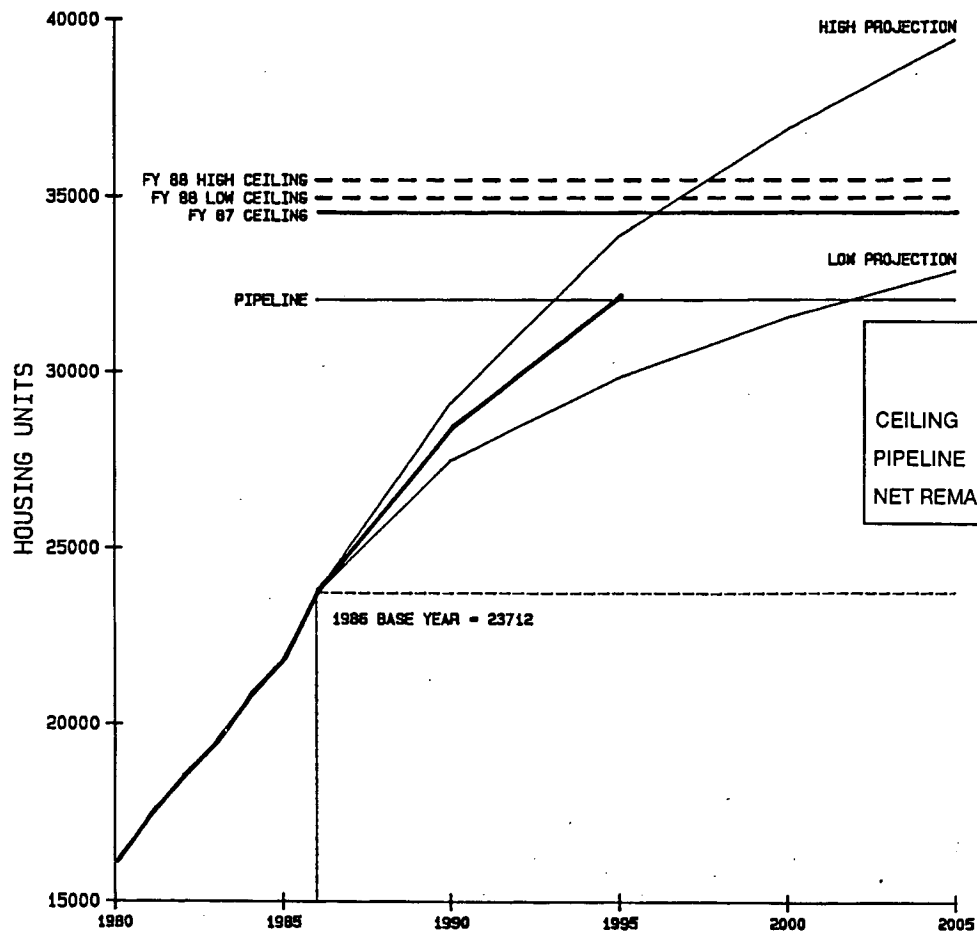


	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	(1,647)	3,853	4,353
PIPELINE	8,089	8,089	8,089
NET REMAINING	(9,736)	(4,236)	(3,736)

GAITHERSBURG EAST POLICY AREA

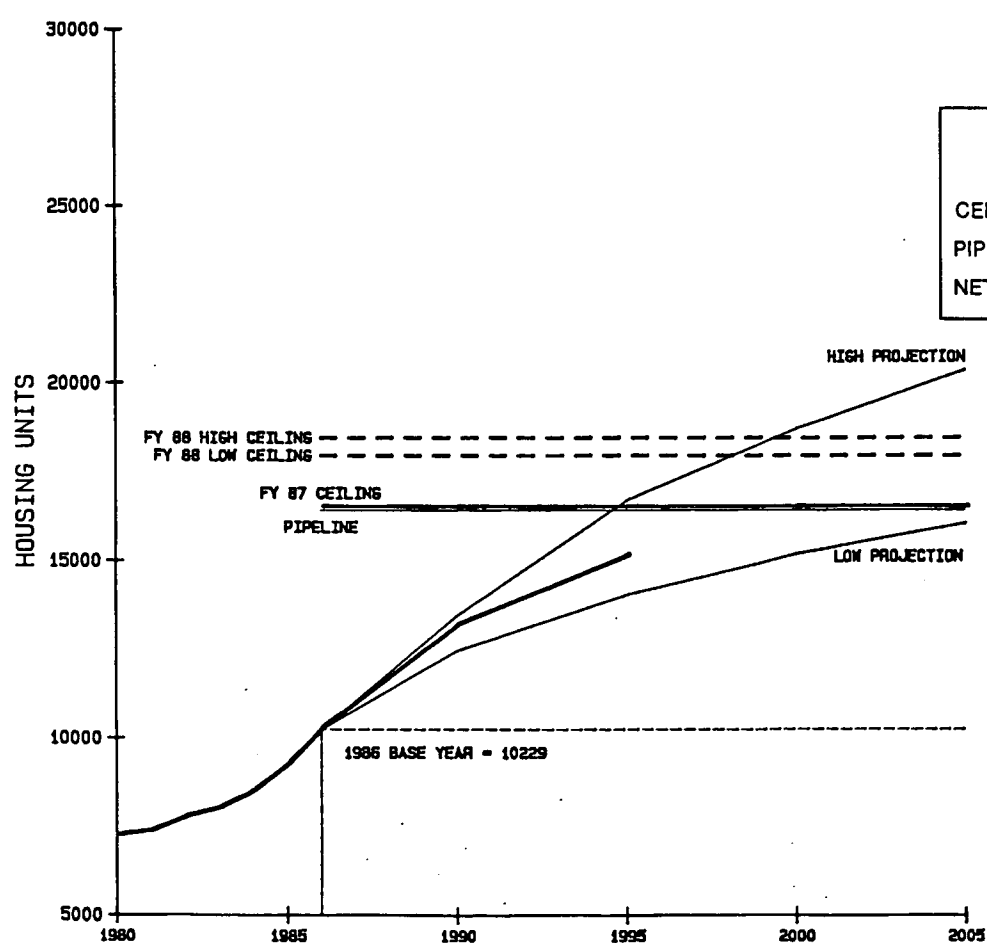
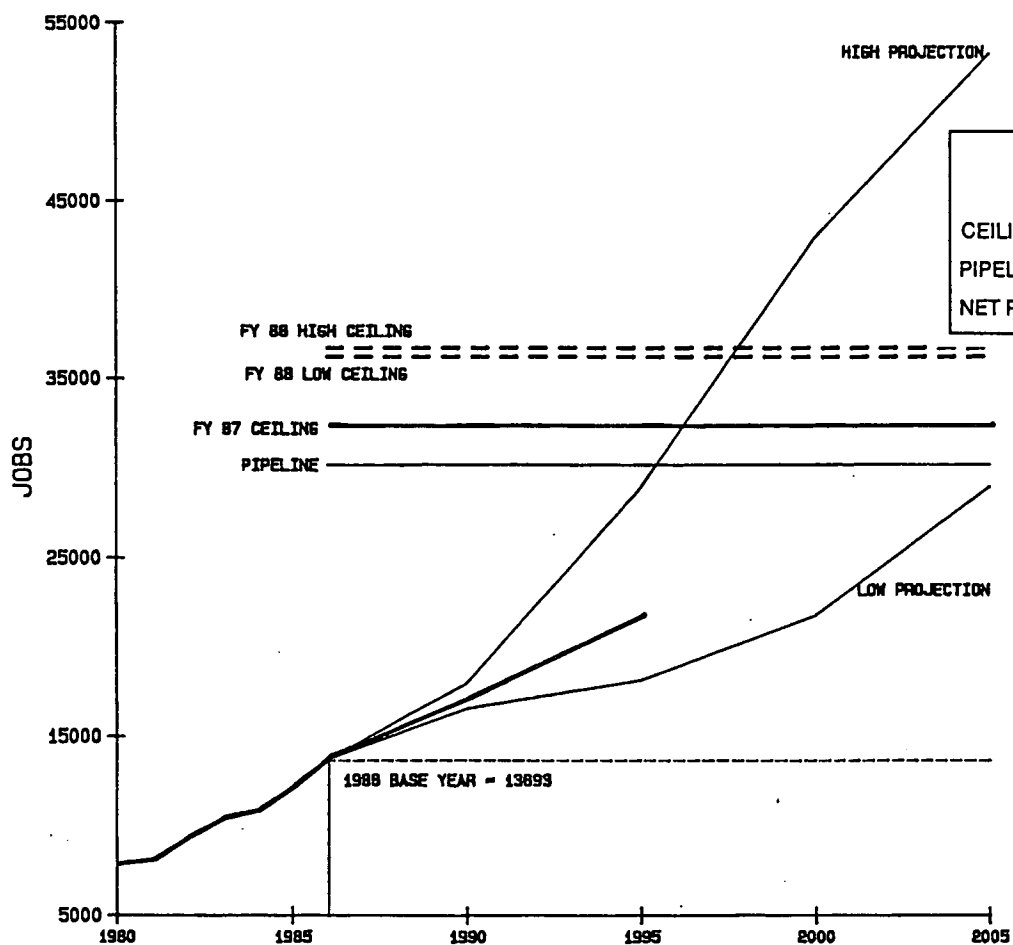


JOBS

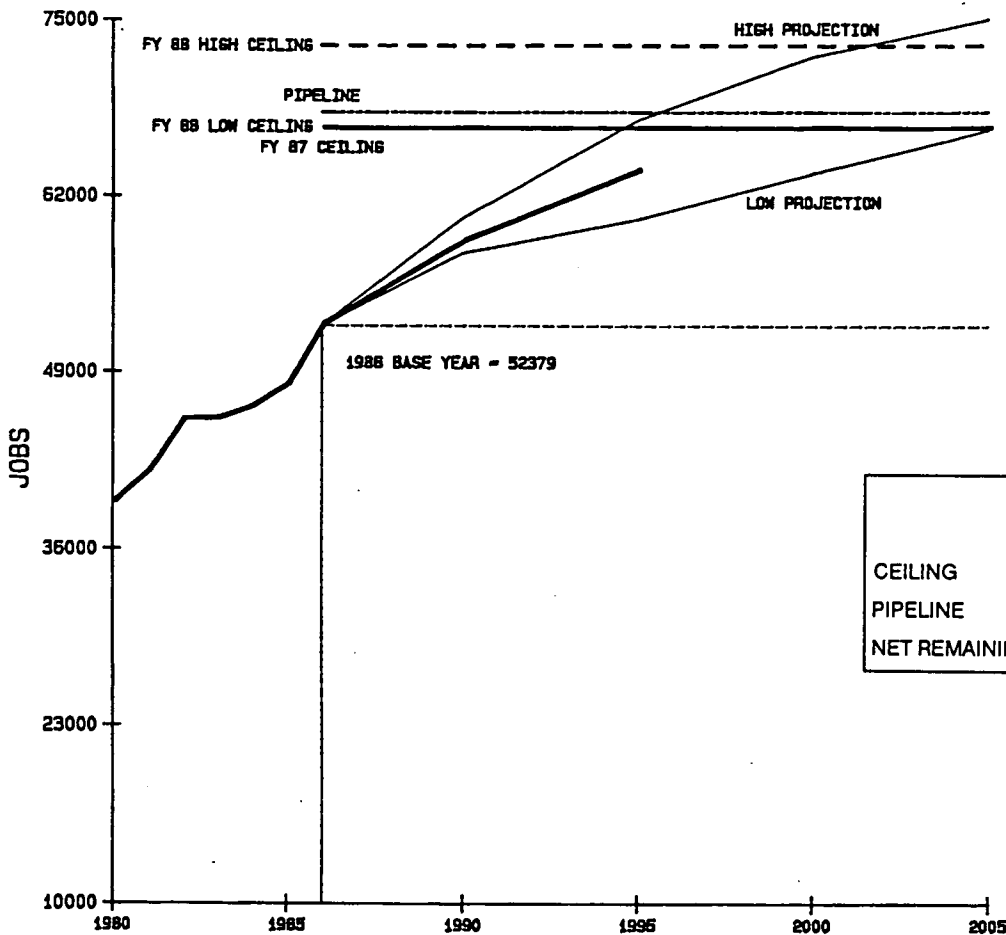


HOUSING

GAITHERSBURG WEST POLICY AREA

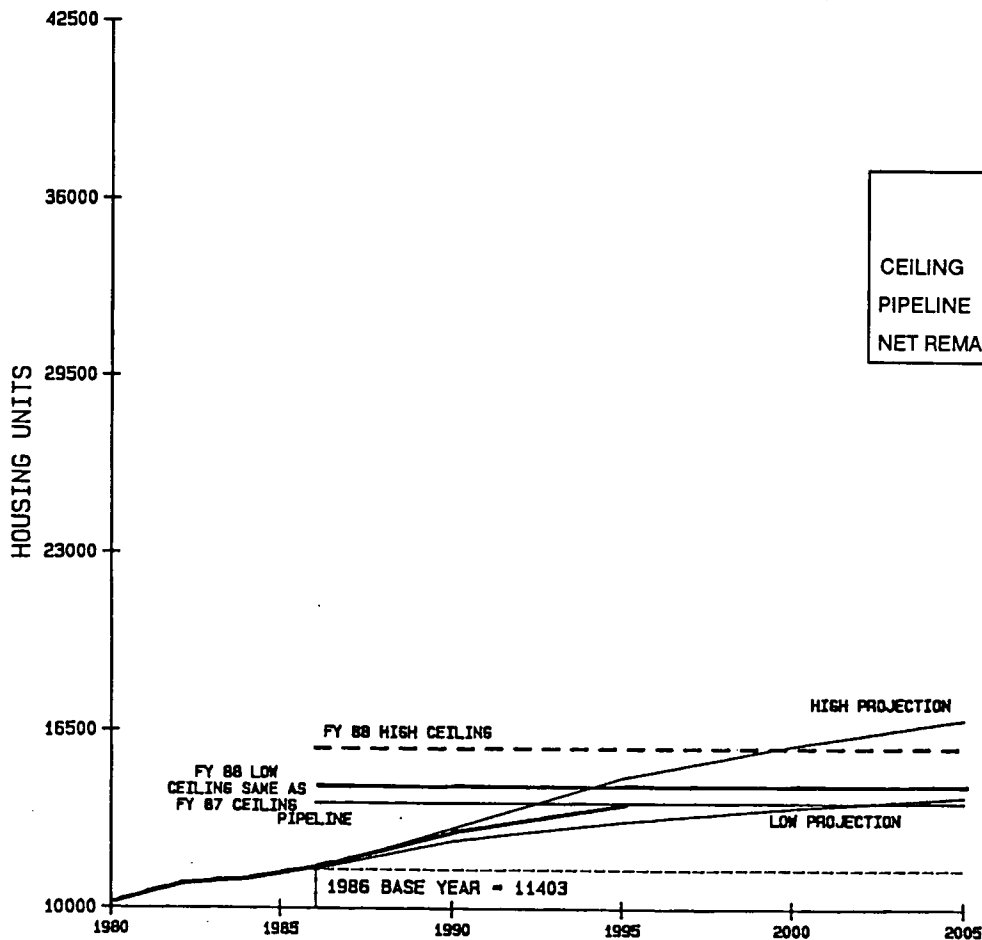


NORTH BETHESDA POLICY AREA



JOBS

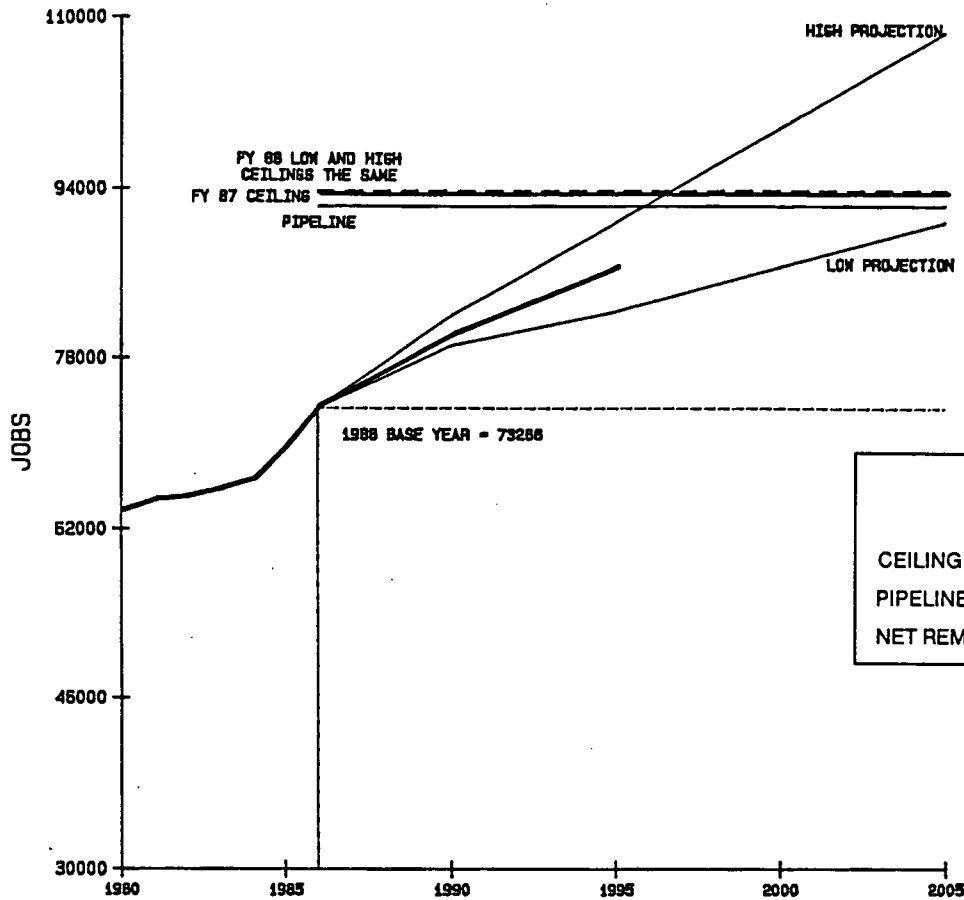
	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	14,499	14,499	20,499
PIPELINE	15,818	15,818	15,818
NET REMAINING	(1,319)	(1,319)	4,681



HOUSING

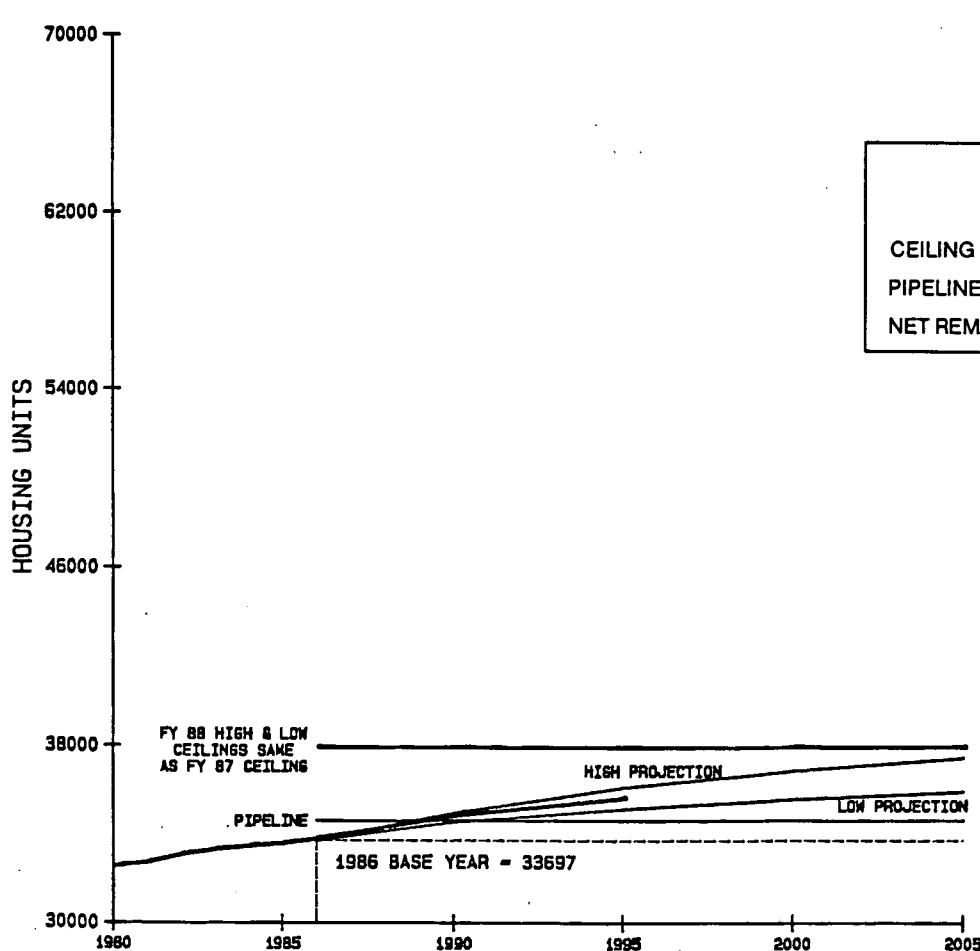
	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	2,940	2,940	4,440
PIPELINE	2,437	2,437	2,437
NET REMAINING	503	503	2,003

BETHESDA POLICY AREA



JOBS

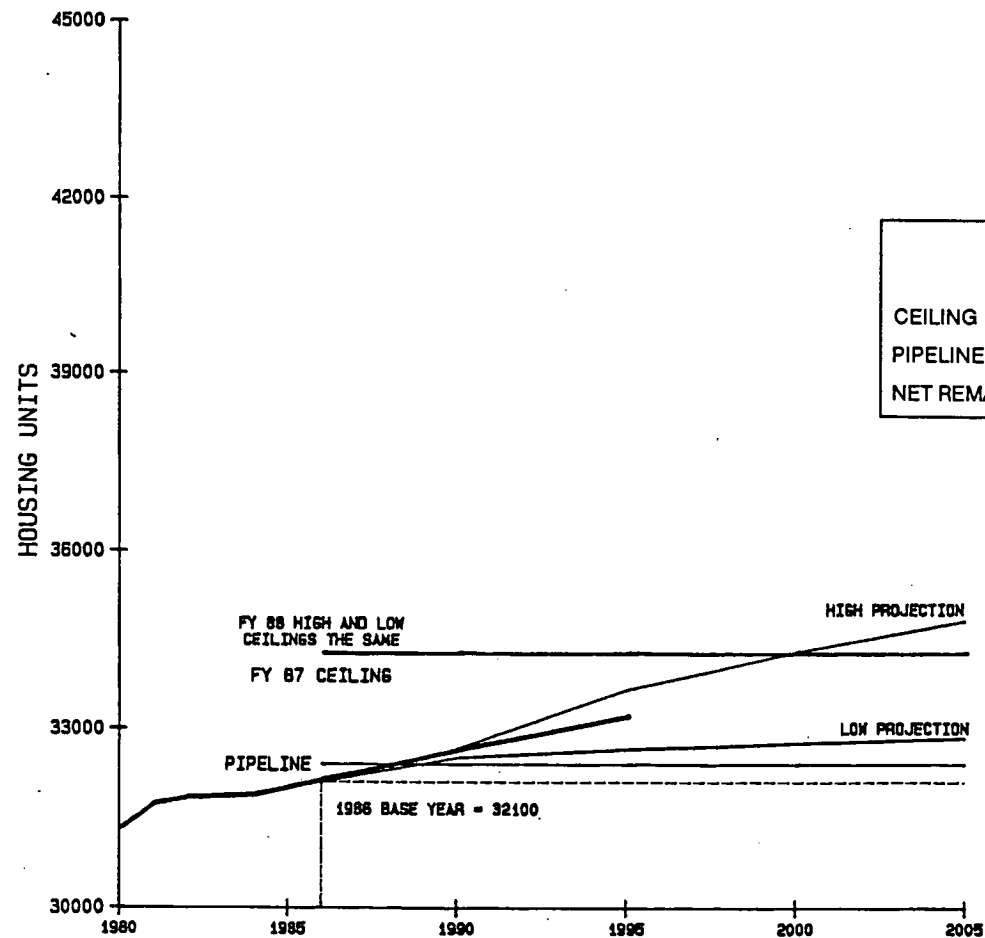
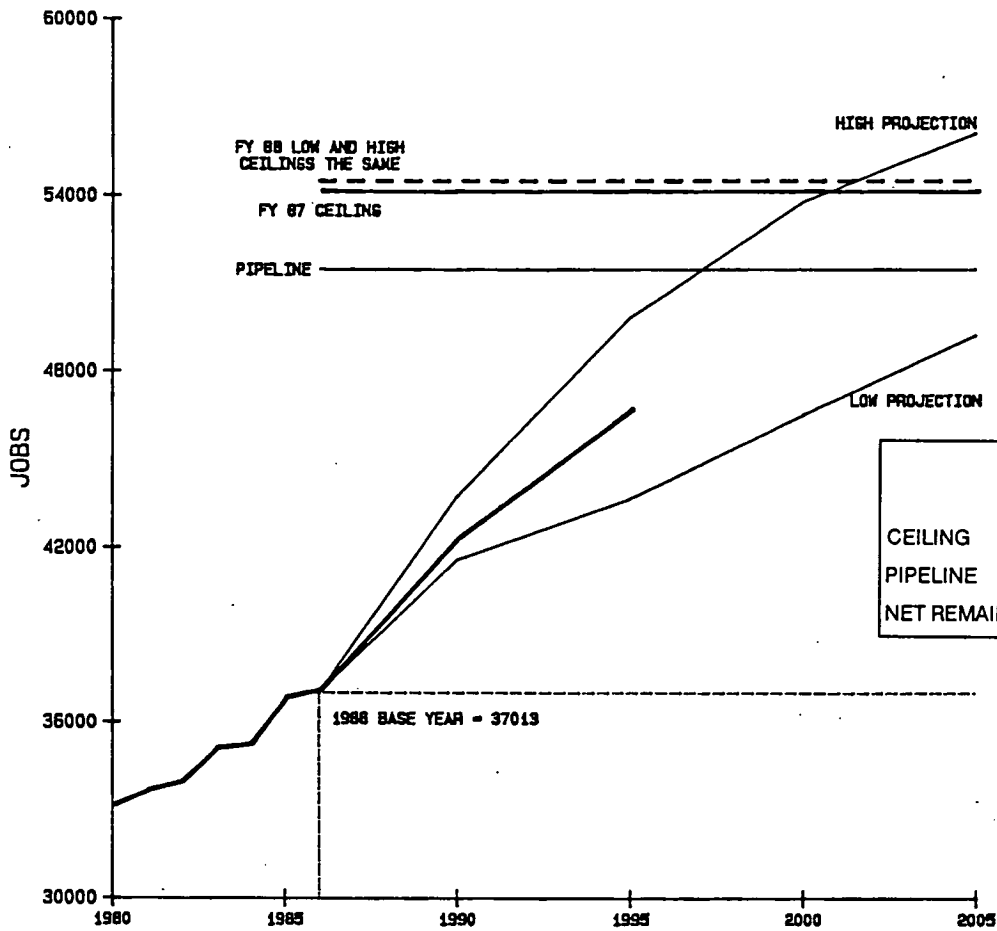
	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	19,906	19,906	19,906
PIPELINE	18,991	18,991	18,991
NET REMAINING	915	915	915



HOUSING

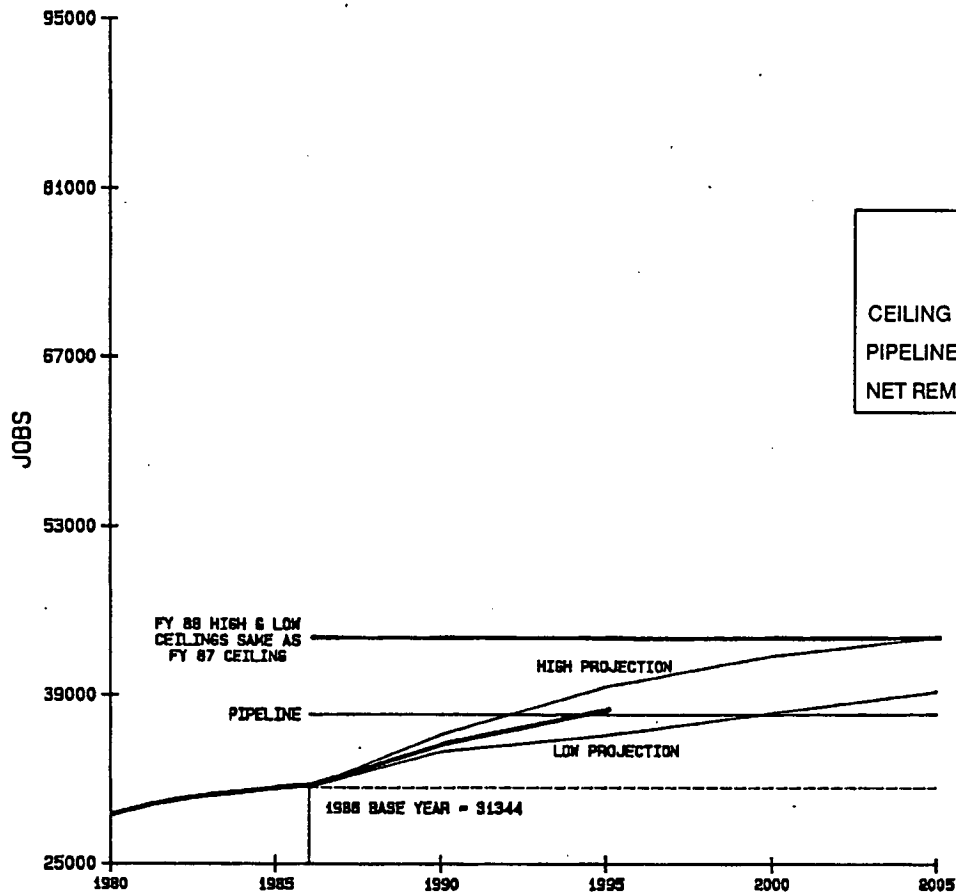
	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	4,083	4,083	4,083
PIPELINE	894	894	894
NET REMAINING	3,189	3,189	3,189

SILVER SPRING/TAKOMA PARK POLICY AREA

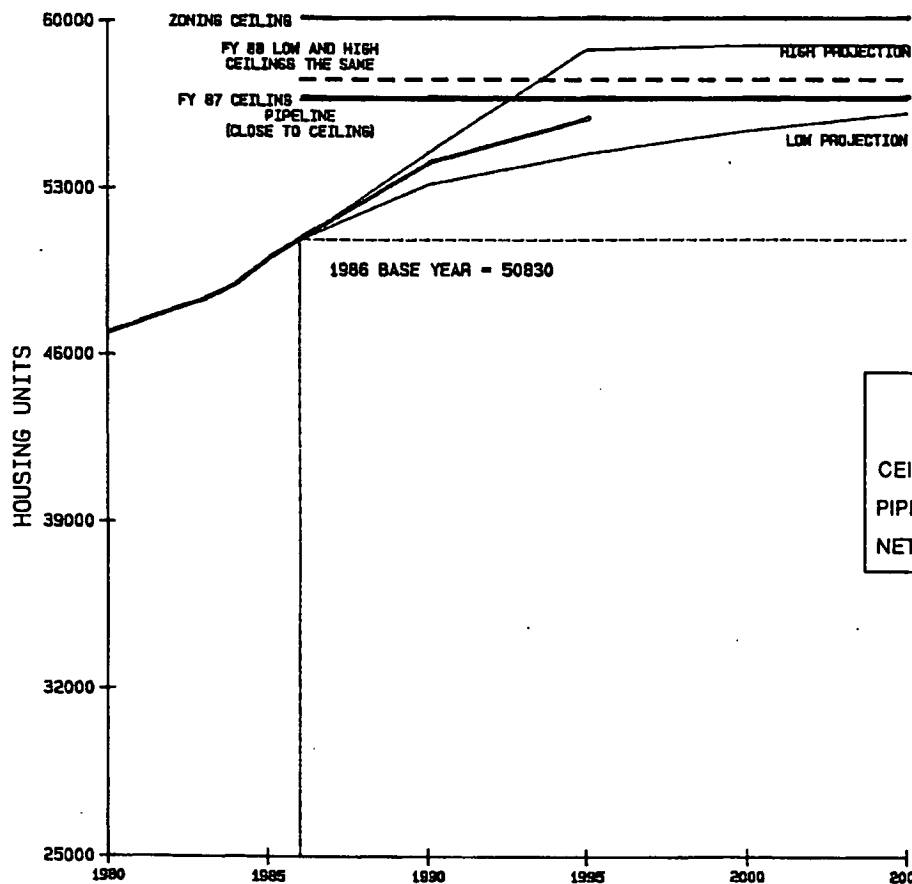


KENSINGTON/WHEATON POLICY AREA

JOBS



	FY 88	
	FY 87	FY 88
CEILING	12,208	12,208
PIPELINE	6,037	6,037
NET REMAINING	6,171	6,171

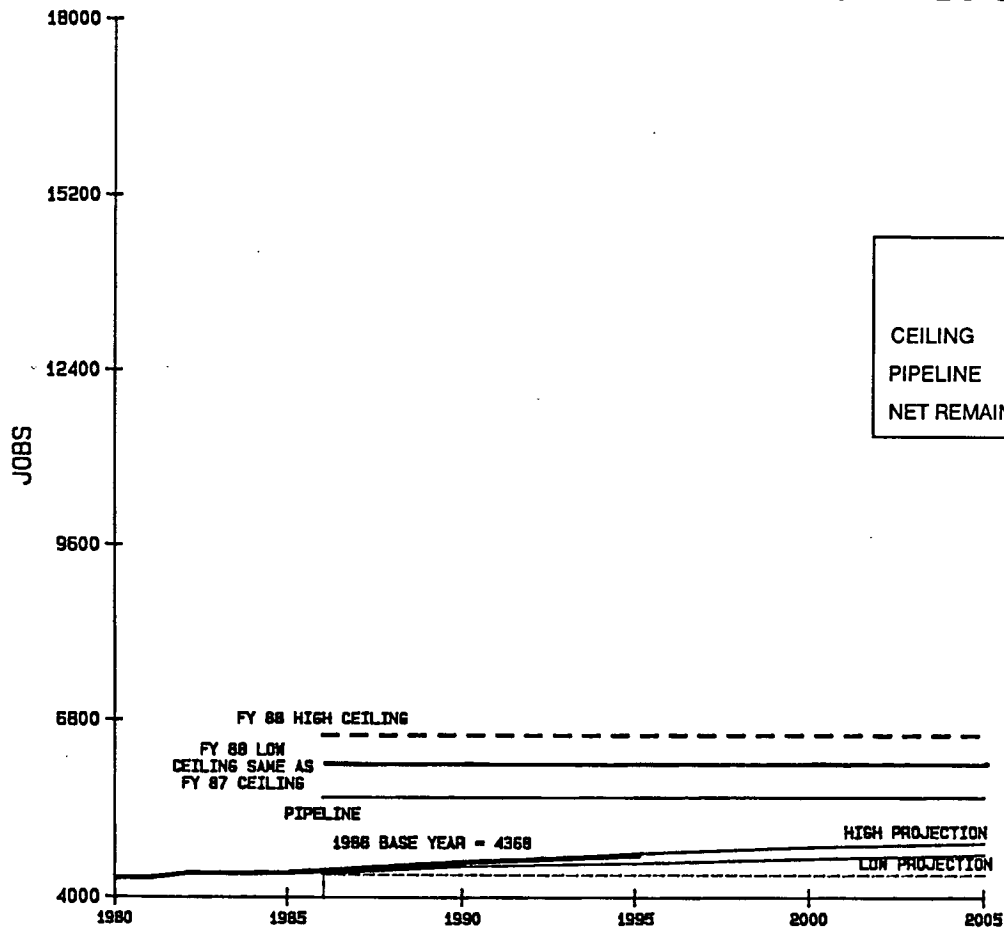


HOUSING

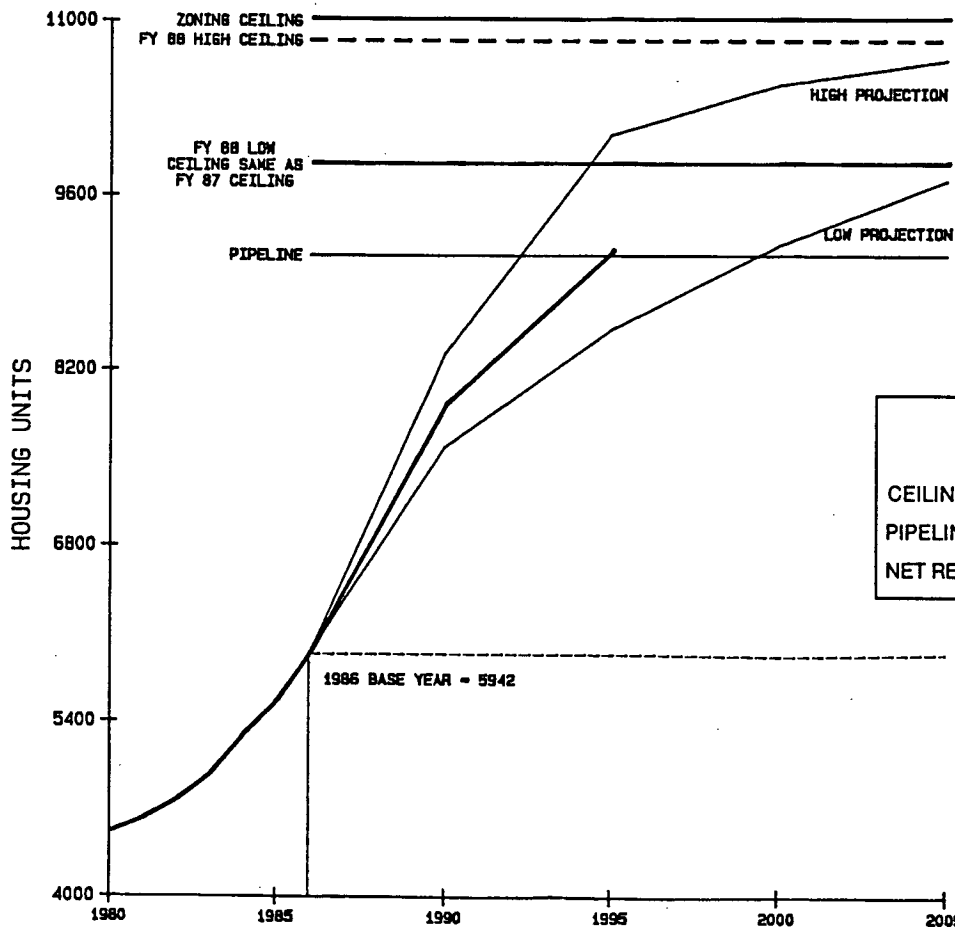
	FY 88	
	FY 87	FY 88
CEILING	6,194	6,694
PIPELINE	5,829	5,829
NET REMAINING	365	865

OLNEY POLICY AREA

JOBS



	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	1,687	1,687	2,187
PIPELINE	1,240	1,240	1,240
NET REMAINING	447	447	947

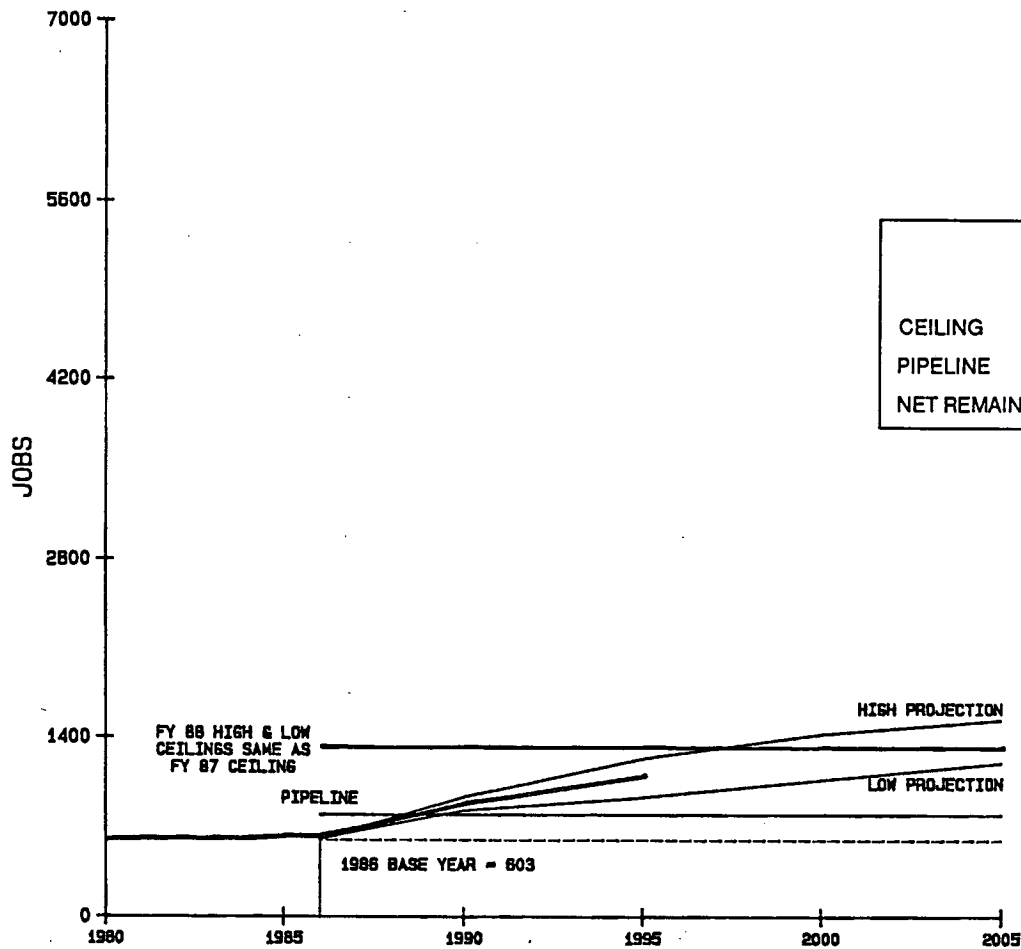


HOUSING

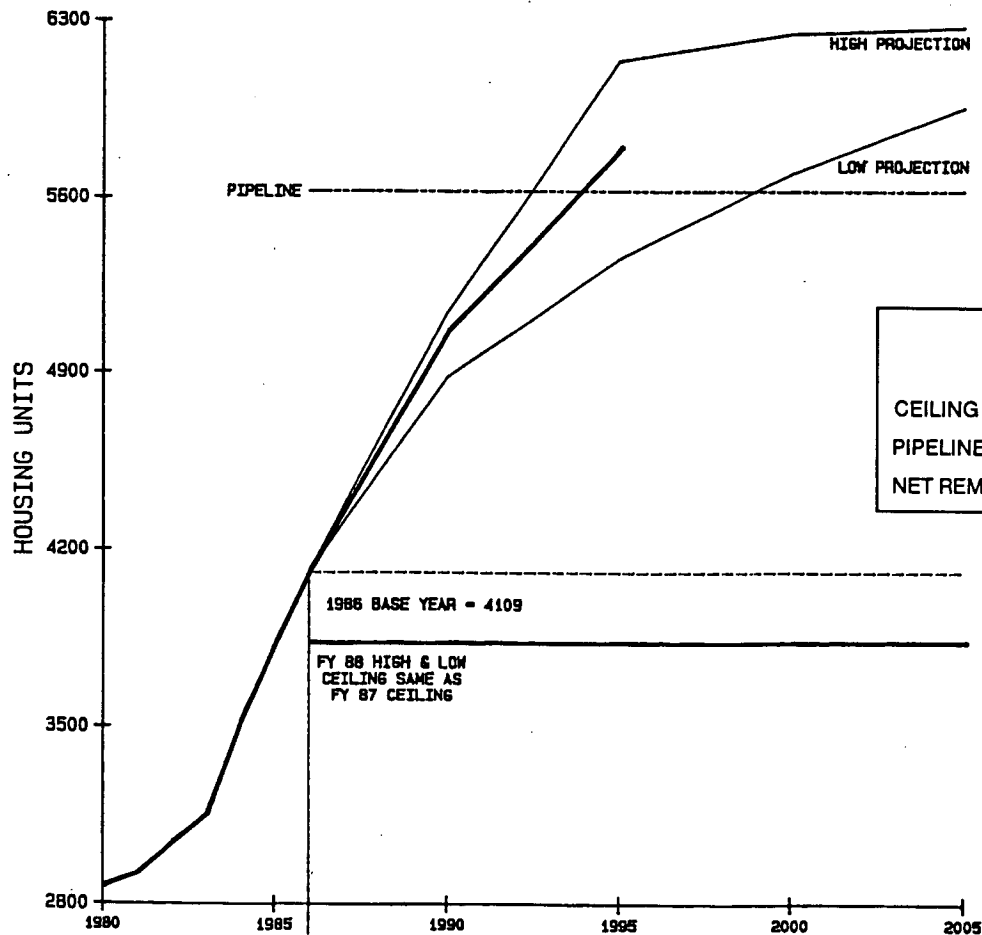
	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	3,900	3,900	4,400
PIPELINE	3,177	3,177	3,177
NET REMAINING	723	723	1,223

CLOVERLY POLICY AREA

JOBS



	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	693	693	693
PIPELINE	188	188	188
NET REMAINING	505	505	505

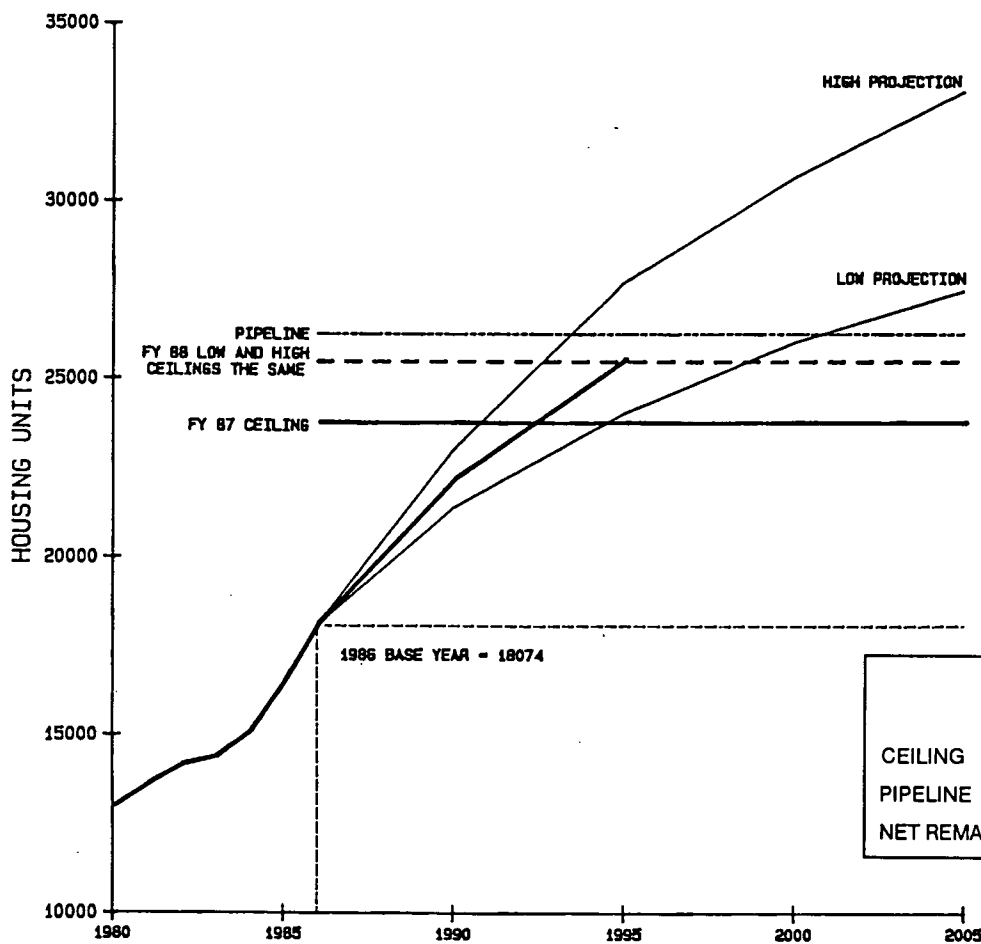
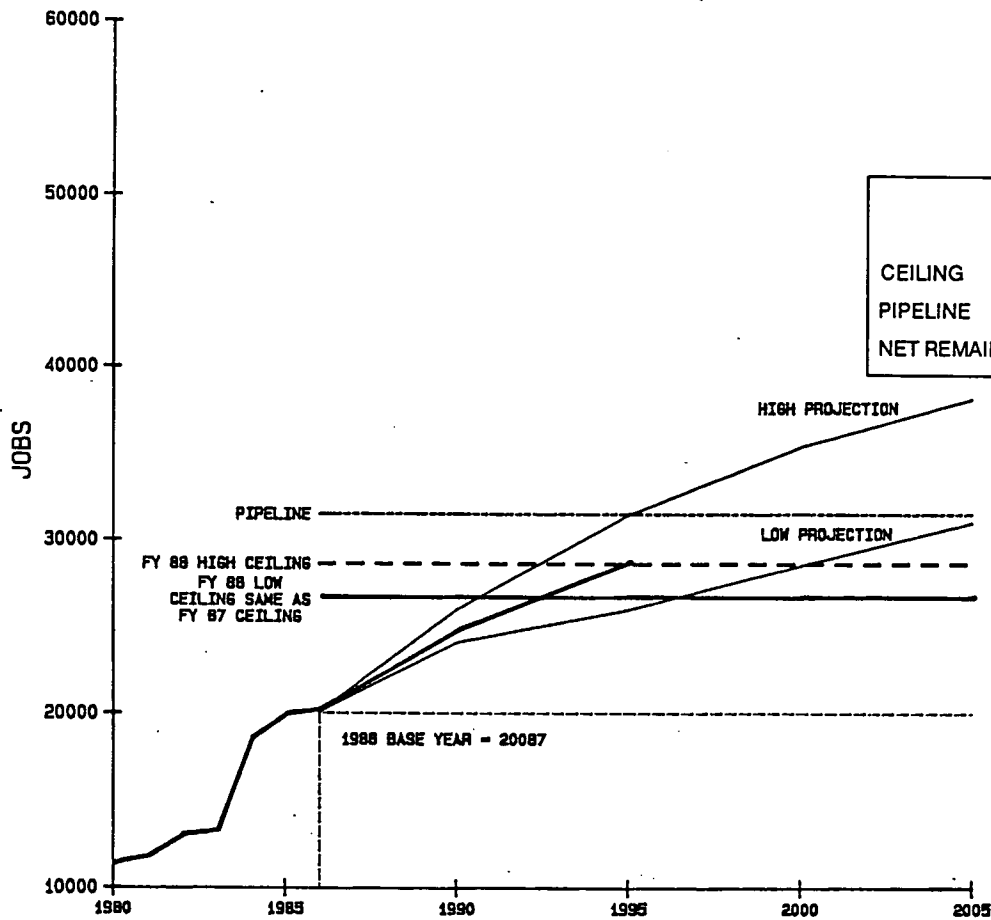


HOUSING

	FY 87	FY 88 LOW	FY 88 HIGH
CEILING	(290)	(290)	(290)
PIPELINE	1,514	1,514	1,514
NET REMAINING	(1,804)	(1,804)	(1,804)

FAIRLAND/WHITE OAK POLICY AREA

JOBS



HOUSING

Appendix 5:

**ADEQUATE
PUBLIC
FACILITIES
ORDINANCE**

Subdivision Regulation
Amendment No.: 86-4
Concerning: Adequate Public
Facilities Ordinance
Draft No. & Date: 1 - 3/30/86
Introduced: March 4, 1986
Public Hearing: April 15, 1986
8:30 p.m.
Adopted: April 22, 1986
Effective: April 22, 1986
Ordinance No.: 10-71

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION
OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT
WITHIN MONTGOMERY COUNTY, MARYLAND

By: District Council

AN AMENDMENT to the Montgomery County Subdivision Regulations for the purpose of

- providing a more explicit role for the County Executive in Adequate Public Facilities matters;
- providing for Council approval of Adequate Public Facilities thresholds and criteria through the Annual Growth Policy or District Council resolution; and
- providing for changes in the Adequate Public Facilities criteria for the interim period before Council action on the first Annual Growth Policy.

By amending the following sections of the Montgomery County Zoning Ordinance, Chapter 59 of the Montgomery County Code:

Section 50-35(k) "Adequate Public Facilities"

- EXPLANATIONS:
- Boldface indicates matter that is a heading or a defined term.
 - Underlining indicates language added to existing law.
 - [[Double Brackets]] indicate language deleted from existing law.
 - CAPITALS indicate Committee additions.
 - [Single Brackets] indicate Committee deletions.
 - * * * indicates existing law unaffected by the bill.

OPINION

Subdivision Regulation Amendment No. 86-4 was introduced on March 4, 1986, at the request of the Montgomery County Planning Board for the purpose of:

1. providing a more explicit role for the County Executive in Adequate Public Facilities matters;
2. providing for Council approval of Adequate Public Facilities thresholds and criteria through the Annual Growth Policy or District Council resolution; and
3. providing for changes in the Adequate Public Facilities criteria for the interim period before Council action on the first Annual Growth Policy.

The Montgomery County Planning Board recommended to the District Council that Subdivision Regulation Amendment No. 86-4 be approved as introduced.

Subdivision Regulation Amendment No. 86-4 was taken to public hearing on April 15, 1986, and reviewed by the District Council at a meeting held on April 22, 1986. It is the position of the District Council that it would be in the public interest for the Council to approve the "thresholds" for development that are currently being approved administratively by the Montgomery County Planning Board. The Council intends to use the Comprehensive Planning Policies Report which the Planning Board has been adopting annually, as the basic format for the Annual Growth Policy Report, which will continue to be drafted by the Planning Board, but henceforth will be adopted by the County Council. The value of the Council undertaking this responsibility is being recognized to an increasing degree and Subdivision Regulation Amendment No. 86-4 provides the authority for the accomplishment of this objective. The Council also believes the County Executive should have a more direct and explicit role in adequate public facility matters as provided for in Subdivision Regulation Amendment No. 86-4.

The Council has reviewed proposals for strengthening the criteria for determining the adequacy for public facilities on several occasions. The Council believes that the need exists to have a close linkage between subdivision approval and the availability of related roads. Subdivision Regulation Amendment No. 86-4 provides this linkage by requiring that roads may only be determined to be adequate

if 100% of the expenditure for construction of the road is estimated to occur in the first four years of the Capital Improvement Program.

For these reasons and because to approve this amendment will assist in the coordinated, comprehensive, adjusted and systematic development of the Maryland-Washington Regional District located in Montgomery County, Maryland, Subdivision Regulation Amendment No. 86-4 will be approved.

ORDINANCE

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following ordinance:

Sec. 1. Amend Chapter 50, title "Subdivision of Land", Section 50-35(k), title "Adequate Public Facilities", to read as follows:

50-35. Same - approval procedure.

(k) Adequate public facilities. A [[No]] preliminary plan of subdivision [[shall]] must not be approved unless the planning board determines that public facilities [[are]] will be adequate to support and service the area of the proposed subdivision. Public facilities and services to be examined for adequacy will include roads and public transportation facilities, sewerage and water service, schools, police stations, firehouses, and health clinics.

(1) Periodically the District Council will establish by resolution, after public hearing, guidelines for the determination of the adequacy of public facilities and services. An Annual Growth Policy approved by the County Council may serve this purpose if it contains those guidelines. To provide the basis for the guidelines, the planning board and the County Executive must provide information and recommendations to the Council as follows:

(a) The planning board must prepare an analysis of current growth and the amount of additional growth that can be accommodated by future public facilities and services. The planning board must also recommend any changes in preliminary plan approval criteria it finds appropriate in the light of its experience in administering these regulations.

(b) The County Executive must comment on the analyses and recommendations of the planning board and must recommend criteria for the determination of the adequacy of public facilities as the Executive deems appropriate.

(2) The applicant for a preliminary plan of subdivision ~~[[shall]]~~ must, at the request of the planning board, submit sufficient information and data on the proposed subdivision to demonstrate the expected impact on and use of public facilities and services by possible uses of said subdivision.

(3) The planning board must submit the preliminary plan of subdivision to the County Executive in addition to the agencies specified in Section 50-35(a).

(4) The planning board must consider the recommendations of the County Executive and other agencies in determining the adequacy of public facilities and services in accordance with the guidelines and limitations established by the County Council in its Annual Growth Policy or established by resolution of the District Council after public hearing.

[[(1)]] (5) Until such time as the Annual Growth Policy or resolution of the District Council provides guidelines and limitations for the determination of the adequacy of public facilities and services, public facilities may be determined to be adequate to service a tract of land or an affected area when the following conditions are found to exist:

a. The tract or area [[is]] will be adequately [[accessible by means of]] served by roads and public transportation facilities. Said area or tract to be subdivided shall be deemed adequately [[accessible via]] served by roads and public transportation facilities if, after taking into account traffic generated by all approved subdivisions and the subject subdivision, [[any of]] the following conditions [[are present]] will be satisfied:

[[(1)]] Existing roads are adequate to accommodate the traffic that would be generated by the subject subdivision in addition to the existing traffic, and are publicly maintained, all-weather roads; or

[[(ii)]] Such additional roads, necessary in combination with existing roads to accommodate the additional traffic that would be generated by the subject subdivision, are: proposed on an adopted master plan and, are programmed in the current adopted capital improvements program, or the state highway administration's five year program for construction with public or private financing

[[(iii)]] Public bus, rail, or other form of mass transportation sufficient to serve the proposed subdivision, in combination with (i) or (ii) or both, is available or programmed within the area affected or within one-third mile of the subdivision under consideration.

[(iv)] In its determination of the adequacy of a road to accommodate traffic, the planning board shall consider the recommendation of the state highway administration or county department of transportation, the applicable levels of traffic service, peak hour use and average use, and any other information presented.]]

(1) For the geographic area in which the proposed subdivision is located, an acceptable average peak-hour level of service will result from:

(A) Existing publicly maintained all-weather roads;

(B) Additional roads programmed in the current adopted capital improvements program of the County or the Maryland consolidated transportation program, for which 100% of the expenditures for construction are estimated to occur in the first four years of the program; and

(C) Available or programmed public bus, rail, or other public or private form of mass transportation.

(ii) For intersections or links significantly affected by traffic from the subject subdivision, an acceptable peak hour level of service will result from:

(A) Existing publicly maintained all-weather roads;

(B) Additional roads identified on the Approved Road Program published by the County Executive; and

(C) Available or programmed public bus, rail, or other form of mass transportation.

(iii) For the purposes of subsection (ii) above, the County Executive shall publish periodically an Approved Road Program which shall list all roads programmed in the current adopted capital improvements program and the Maryland consolidated transportation program for which:

(A) in the case of the capital improvements program, 100% of the funds have been appropriated for construction costs; and

(B) the County Executive has determined that construction will begin within two years of the effective date of the Approved Road Program.

(iv) For the purposes of subsection (1) and (iii) above, roads required under Section 302 of the Charter to be authorized by law are not considered programmed until they are finally approved in accordance with Section 20-1 of this Code.

(v) Any parcel zoned for light industrial use (I-1) which has been in reservation for public use pursuant to action of the Montgomery County Planning Board at any time since June 1, 1981, and which has not changed in size or shape since June 1, 1958, will not be subject to the above subsection (a) if a preliminary plan was submitted prior to June 1, 1981.

b. The tract or area has adequate sewerage and water service.

(1) For a subdivision dependent upon public sewerage and water systems:

1. Said area or tract to be subdivided shall be deemed to have adequate sewerage and water service if located within an area in which water and sewer service is presently available, under construction, or designated by the county council for extension of water and sewer service within the first two years of a current approved ten year water and sewerage plan.

2. If said area or tract to be subdivided is not situated within an area designated for service within the first two years of a current approved ten year water and sewerage plan, but is within the last eight years of such plan, it shall be deemed to have adequate water and sewerage service if the applicant provides community sewerage and/or water systems as set forth in section 387C of article 43 of the Annotated Code of Maryland provided the installation of such facilities shall have been approved by the state department of health and mental hygiene, the Washington Suburban Sanitary Commission, the county health department, and the Montgomery County Council.

(ii) For a subdivision dependent upon the use of septic systems: Said area or tract to be subdivided shall be deemed to have adequate sewerage service if development with the use of septic systems is in accordance with section 50-27, or regulations published by the Maryland State Department of Health and Mental Hygiene pursuant to article 43, Annotated Code of Maryland, whichever imposes the greater or more stringent requirement.

(iii) In its determination of the adequacy of sewerage or water service, the planning board shall consider the recommendation of the Washington Suburban Sanitary Commission, the capacity of trunk lines and sewerage treatment facilities and any other information presented.

c. The tract or area is so situated as not to involve danger or injury to health, safety or general welfare. Such danger or injury may be deemed not to exist:

(i) When physical facilities, such as police stations, firehouses and health clinics, in the service area for the preliminary subdivision plan are currently adequate or are scheduled in an adopted capital improvements program in accordance with the applicable area master plan or general plan to provide adequate and timely service to the subdivision; and

(ii) If adequate public utility services will be available to serve the proposed subdivision; and

(iii) When, in the case of schools, the capacity and service areas are found to be adequate according to a methodology set forth in a resolution adopted by the District Council after public hearing; provided, however, that until such resolution by the District Council takes effect, the Planning Board shall determine the adequacy of school facilities after considering the recommendations of the Superintendent of Schools.

d. Existing or proposed street access within the tract or area is adequate. Street access may be deemed adequate if the streets:

(i) Are adequate to serve or accommodate emergency vehicles,

(ii) Will permit the installation of public utilities and other public services,

(iii) Are not detrimental and would not result in the inability to develop adjacent lands in conformity with sound planning practices, and

(iv) Will not cause existing street patterns to be fragmented.

[(2) In considering questions of adequacy of public facilities, as set forth in subparagraphs a., b., c. and d. of paragraph (1) of this subsection, the planning board shall consider, but not be limited to, the nature, extent, and size of the proposed subdivision and its impact in terms of the following:]

[[a. The estimated increase in population likely to result when said subdivision is developed in context with projected densities, as anticipated by adopted area master plans and currently approved subdivisions, in the surrounding area and immediate vicinity of the proposed subdivision.]]

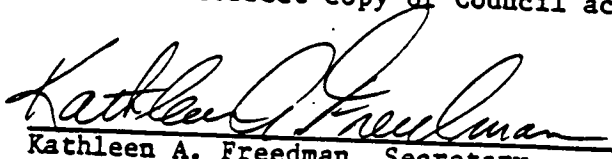
[[b. The present or projected state of development likely to result when said subdivision is developed in context with projected densities, as anticipated by adopted area master plans and currently approved subdivisions, in the surrounding area and immediate vicinity of the proposed subdivision.]]

[[c. The avoidance of excessive expenditure of public funds necessitated by the proposed subdivision.]]

[(3)] (6)Exemptions. Places of worship and residences for staff, parish halls, and additions to schools associated with places of worship, are not subject to the provisions of Section 50-35(k), Adequate Public Facilities.

Sec. 2. This ordinance takes effect immediately upon adoption.

This is a correct copy of Council action.


Kathleen A. Freedman, Secretary
County Council

Appendix 6:

**TRANSPORTATION
LEVEL OF
SERVICE
MEASUREMENT**

1. Measures of Transportation Level of Service

A) Two Measures of Level of Service

The carrying capacity of the County's transportation system is measured by means of a "Level of Service" (LOS) indicator. This indicator is used in two different ways: (1) to measure the specific condition at a particular intersection or segment of a road, and (2) to measure the average condition over an area that includes many intersections and road segments. The methods used to measure LOS at an intersection or segment are more easily understood than those used to measure average LOS over an area. Because this Annual Growth Policy uses the average LOS concept as an important building block in its analysis, the methods used to calculate this measure warrant explanation. All the methods used in this report are extensions of the methods used in previous Comprehensive Planning Policy reports prepared by the Planning Department.

B) Intersection Level of Service

The concept of intersection or roadway LOS has been used by the transportation engineering profession since the early 1950's. It basically has been a qualitative measure of how well an intersection or roadway is operating. It is a separate concept from capacity which is a quantitative measure of traffic flow. Definitions and measurement criteria have been established to distinguish among the different gradations of LOS. An easily recognizable way to distinguish among these levels has been to use "letter grades" ranging from A to F which are analogous to the letter grading systems familiar to students. In this measurement scale, the LOS A is associated with conditions of least congestion and generally free flowing traffic with safe operating speeds. At the other end of the measurement scale is LOS F which is associated with conditions that represent stop-and-go congested traffic, where there are often forced flow situations and traffic back ups. For a roadway segment, the greatest traffic flows occur at LOS E which is considered as the maximum capacity.

The particular intersection LOS measurement technique used by the Planning Board has been that of the Critical Lane Volume method. This particular technique is outlined in the subsequent section on the Local Area Transportation Review. That section also gives the measurement scale which distinguishes among the different LOS categories.

The Planning Department has initiated some studies to develop a better understanding of how to measure and depict traffic congestion, particularly for congestion at intersections. Videotaping and time lapse filming was carried out in September, 1986 at six selected intersections and for a section of I-270. This material is being analyzed and the film edited to produce a presentation film which will illustrate conditions representative of those different levels of intersection LOS. This material

should be available in time for the Planning Board worksessions on this draft Annual Growth Policy. This exploratory research is partially in response to one of the recommendations of the Citizens Technical Advisory Committee in their 1982 review of the APFO guidelines; to explore whether calculated LOS at certain intersections are inconsistent with perceived LOS.

C) Average Level of Service for an Area

The Planning Board and staff have used the concept of average LOS since it was introduced in the 1979 Comprehensive Staging Plan proposal. Briefly, it was developed as follows.

The County has been divided into a number of policy areas which have been used as the geographic units for which average LOS conditions for each area is determined. These policy areas are further organized into five groups based upon the degree of public transportation service available to them. These groups have been subsequently related to the average roadway congestion experienced in those areas. From the point of view of travelers in the County, they usually experience several different LOS conditions at different parts of their trip. Consequently, most people tend to view LOS as an average over many roadway segments and intersections. By comparing observed or forecasted traffic volumes on individual roadway segments to the capacity of those roadways, a quantitative indicator, or ratio, associated with particular LOS conditions is obtained. These ratios can then be aggregated and averaged to describe conditions for an entire area, such as a policy area. The resulting measure is seen as being more representative of the cumulative conditions experienced by many travellers across the entire area, than of the conditions at any one intersection or roadway segment.

2. Standards of Acceptability for Average LOS

Five classes of transit service have been used to group policy areas for the purpose of defining LOS standards, or norms, for roadway congestion. Map 1 shows the particular combination of policy areas in accordance with these groups and indicates the acceptable LOS standard for each group. These are the same transportation service standards, or norms for average LOS conditions, which have been used by the Planning Board in setting thresholds in the previous Comprehensive Planning Policies Report. These standards are based upon an acceptance of a policy correlation between transit availability and average LOS on the roadway network. It has been reasoned that as transit service standards decline average roadway congestion standards which are used should provide for less congested LOS conditions. Conversely, as transit service standards increase, roadways, on the average, should be allowed to approach their capacity because people have a convenient alternative to their automobiles.

In effect, these area-wide averages are representative of the dominant congestion conditions experienced by groups of people throughout an area. It is recognized in this average

measurement approach that some individual intersections or roadway segments would be operating at LOS conditions worse than the average, while others will be operating the same or better than the average. For that reason, a policy of doing Local Area Traffic Reviews is used to assess whether one or more particular intersection or roadway segment would operate at an unacceptable LOS.

Table 18 provides more detail to distinguish among the levels of transit service used in this Annual Growth Policy Report. Five levels of service transit availability are identified ranging from areas with no direct transit service to areas with full transit service. As shown in Table 18, these levels are defined by the cumulative combination of various component elements of transit service available in Montgomery County. The five following levels are defined:

- None: areas which can generally be expected to be too far away, or too low in density, to be served by direct walking access to transit routes and for which only park and ride access to distant transit services would be available.
- Limited: areas somewhat distant from rapid rail stations, but for which there is expected to be collector and regional bus service within walk access as well as to have park and ride lots in the vicinity, and possibly commuter rail service.
- Moderate: areas which have regional bus and/or commuter rail access, park and ride access, limited metrorail service and associated feeder bus service.
- Frequent: areas which have metrorail service with some reliance on walk and kiss-'n'-ride access, feeder bus service, regional bus service, and community bus services.
- Full: areas with full metrorail service, concentrated and low headway feeder and community bus service, reliance on kiss-'n'-ride access and easier walk and bicycle access.

Map 1

TRANSPORTATION POLICY AREAS GROUPED BY SERVICE STANDARD

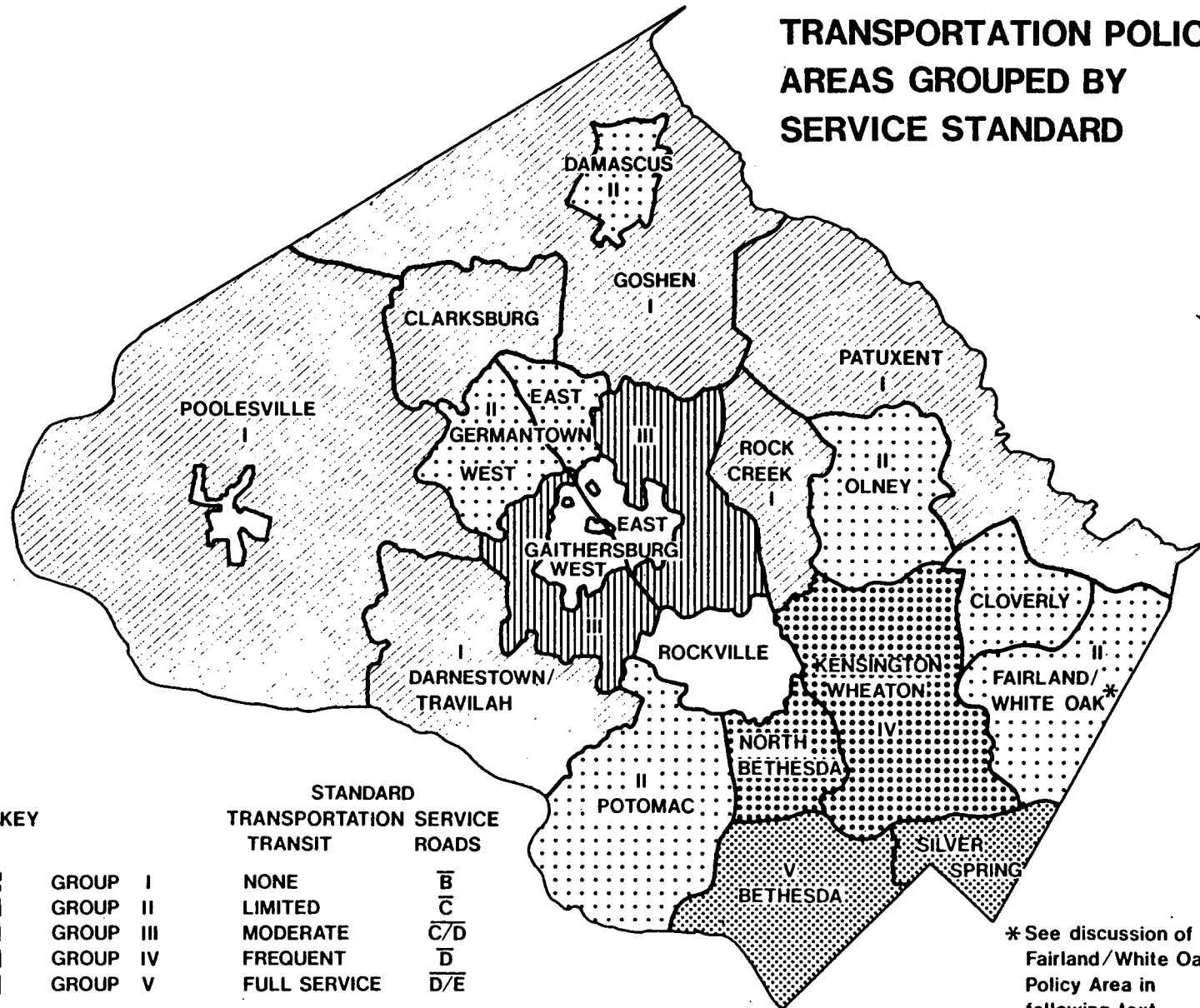


Table 18. Transit Levels of Service

Transit Availability					
Public Trans- port Alternat- ives to Auto- mobile Travel	Park - 'n' - Ride Serviced Areas	Regional Bus Com- muter Rail and Park- 'n' - Ride Lots	Limited Metro- rail in area and Bus Feeder System	Metro- rail, Feeder Bus, Com- munity Bus Kiss- n-Ride	Frequent Metro- rail Con- centrated Feeder and Community Bus, Kiss- n-Ride, Easier Walk Access
None	X				
Limited	X	X			
Moderate	X	X	X		
Frequent	X	X	X	X	
Full Service	X	X	X	X	X

3. Monitoring of Transportation Level of Service Conditions

An important element in the decision making process for this Annual Growth Policy is to provide for feedback loops for the monitoring of transportation level of service conditions in order to ascertain the degree to which the policies are being obtained overtime. Therefore, it is desirable that the specific Level of Service measures being used in the policy making should a) be able to be monitored by field observation and that b) specific programs should be on-going to collect necessary data. In this manner, over a period of time, it will be possible to establish trends of the significant indicators that relate to the measurement of local and area-wide congestion levels. In addition, there are quite a number of other transportation system attributes for which it is important to periodically survey and collect data. Those surveys produce information with which to better model and forecast future travel and transportation system use.

4. Current Transportation Level of Service Conditions

For many years, staff of the Planning Board have been working in cooperation with Montgomery County Department of Transportation (MCDOT) staff to collect, analyze and, tabulate intersec-

tion LOS conditions. In 1977, the Board published the Peak Hour Intersection Level of Service Inventory which provided a tabulation of the then recent LOS conditions. An accompanying set of display maps was also prepared. That inventory has been updated since then on an intermittent basis. That collection of data and information has been summarized here to give an assessment of recent intersection LOS conditions.

A) The Location of the More Congested Intersections

Map 2 shows the location of intersections that have been recently classified as LOS "D", "E", and "F" centered in a 1984/85 time period. In using the date 1984, it must be understood that this year represents the approximate middle of a period between 1983 and 1986, during which the traffic counts reflected in this exhibit were taken in the field. Due to budget constraints, the number of traffic counts taken each year has been limited, with the result that it takes approximately 3 to 4 years to completely update counts over the entire county. Recently, more money has been allocated for this function, but this will not begin to produce results until next year. Therefore, the best data available today is what is shown here, which lags behind the actual current situation by several years. In the meantime, the data shown in Map 2 must be used with a judgmental allowance for the effect of the passage of time.

The intersection LOS is calculated using the Critical Lane Volume Method described in the later section on Local Area Transportation Review. Traffic counts used for these calculations were provided by MCDOT. This exhibit used either A.M. or P.M. peak hour, depending upon which one is the more congested at each location.

The locational pattern of the currently more congested intersections can be seen in Map 2. Generally speaking, the more congested intersections are found in the more urbanized areas of the County; there are essentially no congested intersections in the rural areas, with the exception of the Damascus area. The areas of North Bethesda and the several down-County areas have the most dense concentrations of the more congested intersections. However, a detailed examination of the full LOS Inventory does reveal that even in these areas there is a substantial proportion of intersections that operate at LOS A, B, or C.

B) Trends in Peak Hour LOS by Policy Area

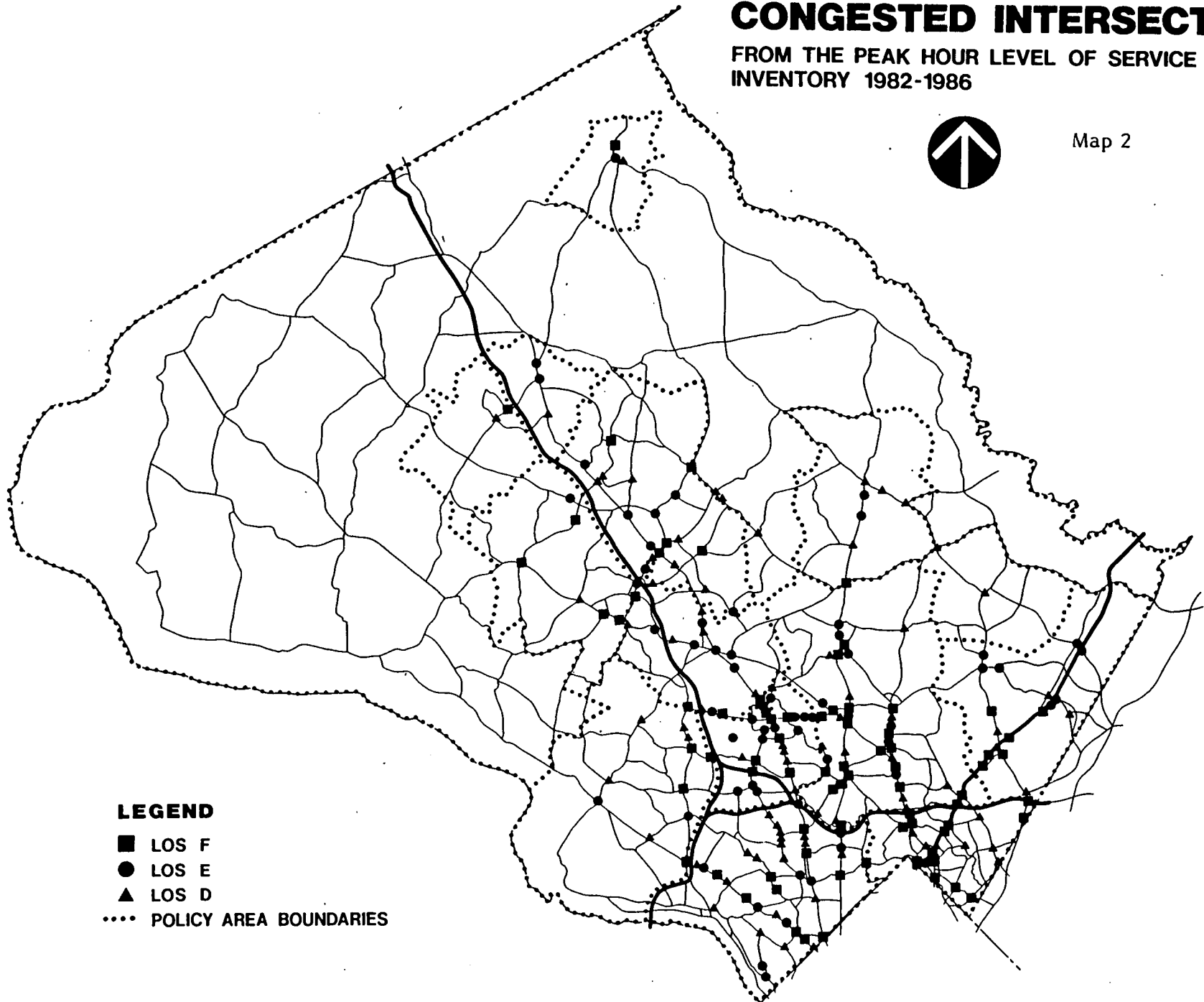
Table 19 is a summary tabulation that shows the number of intersections in each Policy Area which operated at LOS D, E, or F for each of the three time periods. The latest time period corresponds to the one used in the previous Exhibit. Map 2 shows that in most policy areas the number of more congested intersections has been increasing. A detailed analysis of this Exhibit shows that rate of increase in congestion between the second and third time periods is substantially greater than the rate of increase between the first and second periods. That

CONGESTED INTERSECTIONS

FROM THE PEAK HOUR LEVEL OF SERVICE
INVENTORY 1982-1986



Map 2



LEGEND

- LOS F
- LOS E
- ▲ LOS D
- POLICY AREA BOUNDARIES

A-79

observation is reflective in part of the higher rates of employment and residential growth during that occurred in Montgomery County and in the region during that time period.

C) An Assessment of Current Average Level of Service Conditions

Recognizing that the collected traffic data lags behind the actual situation, staff has made an effort to estimate the current (October, 1986) traffic conditions as a judgmental estimate. This estimate compares the 1986 average LOS conditions over each policy area with the average LOS conditions which were set forth in the 1979 Staging Plan proposal. These were proposed then as a "reasonable" standard for growth management purposes, and have been used by the Planning Board since that time. The terms "Better", "Worse" and "Same" are used to reflect a judgment about the relationship between current traffic conditions and the standards previously established.

Map 3 gives the results of this comparative assessment. It shows that the areas of Silver Spring/Takoma Park, Bethesda/Chevy Chase, Kensington/Wheaton and Rockville are estimated to currently have average LOS conditions which are better than, or not as congested as, the transportation service standards for those areas, and one area is estimated to be essentially at its standards, that of Gaithersburg West. The rest are worse than the standard. It is important to note that these are average measurements over large areas, and that individual, local "hot-spot" congestion areas can occur within a larger area that statistically meets the standard on an average basis. For example, excess traffic congestion in Bethesda CBD can coexist with an acceptable LOS average over the entire Bethesda policy area. The growth limits placed on the Bethesda CBD are measured separately through the master plan process, at a greater level of detail.

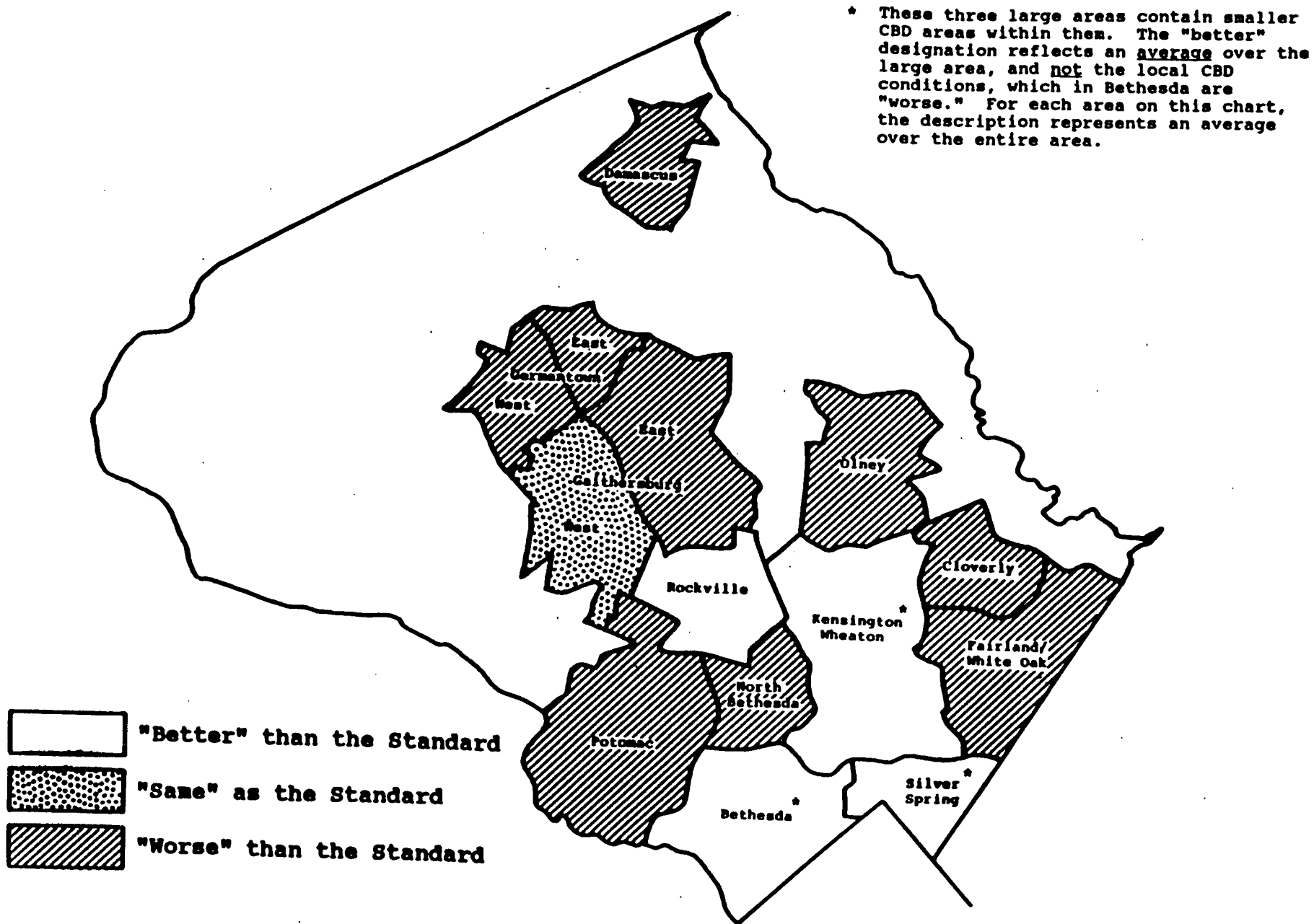
In comparing the estimated average LOS value to the corresponding value of the standard, a criterion of being within plus or minus five percent of the standard is used to determine whether the current values should be considered as being the "same" as the standard. The remaining policy areas are estimated to currently have average LOS conditions worse or more congested than their standards; they are Fairland/ White Oak, Cloverly, Olney, North Bethesda, Potomac, Gaithersburg East, Germantown East, Germantown West, and Damascus.

The pattern of current average LOS conditions given in Map 3 shows first that the areas which have values which are better than their standards, tend to be the down-County areas. The area which has the same LOS conditions as its standard has had a relatively large number of road projects completed in the past few years, either as Metro access projects or as economic development roads. The areas which have average LOS conditions worse than their standards tend to be the areas at the developing fringe. Those areas are the ones which have been experiencing higher rates of growth in the past few years.

Table 19 : Historic Trends in the Number of Intersections, By Policy Area, Which Had Been Operating at LOS D, E, or F

Policy Group	Policy Areas Name	1974-1977* Level of Service			1978-1981* Level of Service			1982-1985* Level of Service		
		D	E	F	D	E	F	D	E	F
I	Balance of Wedge							0	0	0
II	Damascus				0	0	0	1	1	1
	Olney	1	2	0	0	1	0	4	1	0
	Germantown West	0	0	0	0	0	0	1	0	1
	Germantown East	0	0	0	1	1	0	1	2	0
	Cloverly	0	0	0	0	0	0	1	0	0
	Potomac	1	0	0	3	1	0	5	2	3
	Fairland/White Oak	2	2	1	7	1	2	5	7	7
III	Gaithersburg West	0	0	0	4	0	0	2	2	4
	Gaithersburg East	3	1	0	5	2	3	10	6	5
IV	North Bethesda	4	6	2	7	4	6	5	14	11
	Rockville	1	0	2	1	5	3	5	7	3
	Kensington/Wheaton	10	4	6	10	2	9	8	7	19
V	Bethesda	10	9	2	10	6	7	18	9	10
	Silver Spring/Takoma Park	4	4	3	10	2	5	7	2	8
	County Totals	36	28	16	58	25	35	71	60	72

* This information has been compiled from the Peak Hour Level of Service Inventory and gives representative LOS conditions over each of these four year time periods.



Map 3

. Comparison of Estimated Average LOS Conditions by Policy Area for June 1986 With the Los Standards for Each Area

One aspect of this assessment of current conditions that needs to be pointed out is that it is based upon a combination of recent traffic count data summaries and estimates which bring that data to the present. The most recent traffic count data summary which is available is that of the Average Daily Traffic for calendar year 1984, produced by MCDOT. The Average Daily Traffic Summary is a different data element than the counts used to produce the peak hour Intersection LOS Inventory in Map 2. It relies on the same counts used for Map 2, but it requires a mathematical exercise to extrapolate these counts to an estimate of average daily traffic representative of a 24-hour period. Consequently, the latest observed data is at this time almost two years old. Under current budgeting, the 1985 data will not be available until late in the Fall of 1986.

D) Initial Travel Time and Delay Survey

The 1985 Update to the Highway Capacity Manual has introduced a newer ways to define and measure capacities and levels of service. One of the measures being used in the new manual to be an indicator of intersection level of service is that of delay at intersections. As an on-going element of the Commission's FY 1987 Budget specific studies were identified to study capacity and level of service measures. Initial work was begun in September, 1986 to conduct an extensive set of travel times and speed and delay runs throughout the County. These were done for morning and evening peak conditions as well as for relatively uncongested times during the day. Data was collected both to and from a sample of eight activity centers within the County as well as for Downtown Washington.

Appendix 7:

**LOCAL
AREA
TRANSPORTATION
REVIEW**

Specific Guidelines for APFO
LOCAL AREA TRANSPORTATION REVIEW

1. Introduction

The intent of these procedures is to permit the Planning Board under certain situations to withhold approval of an application, even though it would not exceed the staging ceiling. If it is demonstrated that the development will produce excessive local traffic congestion then the Planning Board can deny the proposed subdivision. It is equally important for these procedures to be used by the County Executive to develop specific recommendations that could satisfy these local traffic congestion situations in order that the Planning Board could consider granting approval.

2. Criteria for Screening Cases for Local Area Transportation Review

Planning staff will use the following criteria to determine whether the applicant needs to submit information and data on the proposed subdivision to carry out Local Area Transportation Review. The applicant will be required to submit a transportation statement concerning the need for their submitting a Local Area Transportation Review. If a Local Area Transportation Review is required it must be filed as a part of the subdivision submittal. The Transportation staff will review the transportation statement and notify the applicant at the Subdivision Review Committee if the statement or Local Area Transportation Review is complete. If the development review staff determines by these screening criteria that a Local Area Transportation Review is necessary, but one was not submitted with the original application, the developer's application filing date will be adjusted to reflect when the Local Area Transportation Review was submitted and considered complete. There are three areas where there are exceptions or additions to the normal Local Area Review process:

- 1) "Bethesda Policy Area" development located within the Bethesda Sector Plan area will be reviewed in accordance with the staging element recommendations of the Bethesda Sector Plan.
- 2) "Potomac Policy Area" development will be reviewed in accordance with the adopted Master Plan for the Potomac Subregion. The area contributing traffic to the intersection of Montrose Road and Seven Locks Road will be subject to local area transportation review.
- 3) "Gaithersburg Policy Area" development located within the Shady Grove West area, as defined in the Gaithersburg Vicinity Master Plan, will, in addition to Local Area Review, be subject to restrictions or recording in accordance with the staging plan contained in the Master Plan.

A Local Area Transportation Review is required if the combination of the conditions identified in the following paragraphs is A and B, A and C, or all three:

- A. Significantly Sized Project: The proposed development is of sufficient size to have a measurable impact on a specific local area to be considered in a local review. This is taken to mean either a standard of fifty or more dwelling units in the proposed development or a nonresidential development which would generate fifty or more peak-hour trips. The number of trips shall be calculated with the appropriate rates and category in the Institute of Transportation Engineers Trip Generation Handbook or by other trip generation rates adopted by these guidelines. It is recognized that in the actual Local Area Transportation Review it could be determined that a different trip generation rate may be more appropriate. With regard to smaller sized subdivisions it is presumed that they can only be considered in the area-wide aggregate review which constitutes the staging ceiling.

In determining whether or not a total of 50 or more trips are involved for the purpose of applying the requirements of Local Area Review, all peak hour trips are to be counted even if some of the trips are estimated to be diverted to the site from existing traffic.

In determining whether or not a total of fifty or more dwelling units or trips are involved for the purpose of applying the requirements of Local Area Transportation Review, all land at one location within the County including existing development or available for building development under common ownership or control by an applicant, including that land owned or controlled by separate corporations in which any stockholder (or family of the stockholder) owns ten percent or more of the stock, shall be included. An applicant shall not avoid the intent of this requirement by submitting piecemeal applications or approval requests for subdivision plats, site or development plans, or building permits. Any applicant may submit a preliminary subdivision plat for approval for less than fifty dwelling units or fifty peak-hour trips at any one time provided such applicant must agree in writing that upon the next such application, or request, the applicant will comply with the requirements of Local Area Transportation Review when the total number of requests at one location has reached fifty or more dwelling units or fifty or more trips.

The phrase "at one location" means all adjacent land of the applicant, the property lines of which are contiguous or nearly contiguous at any point, or the

property lines of which are separated only by a public or private street, road, highway, or utility right-of-way or other public or private right-of-way at any point, or separated only by other land of the applicant, which separating land is not subject to the requirements of Local Area Transportation Review at the time of application for preliminary subdivision plat approval.

Plans for more than 50 dwelling units or 50 peak-hour trips which cannot pass Local Area Transportation Review may be conditionally approved such that the development which may proceed to record plat will produce less than 50 dwelling units or 50 peak-hour trips. When the applicant can demonstrate that the full plan, as submitted, including those lots which have been approved for recording, has adequate public facilities for all facilities, then the remainder of the preliminary plan will be able to obtain record plat approval.

- B. Nearby Congestion: The proposed development is located near roadways, intersections, or sets of intersections which are already heavily congested. This is taken to mean a standard of having a critical intersection or highway link operating at Level of Service D or lower in the vicinity of the proposed development. The Transportation Planning Division shall maintain an Intersection Level of Service Inventory based upon traffic counts collected primarily by the MCDOT. The inventory gives the most congested level of service conditions for a one-hour period either in the A.M. or P.M. In addition, the SHA periodically conducts aerial surveys which develop estimates of level of service conditions along major state highways, as well as their interchanges or intersections.
- C. Development Level Approaching the Staging Ceiling: The proposed development is added to: (1) completions since the staging ceiling base year, and (2) all approved subdivisions. If the resulting total development is within 5 percent of the approved staging ceiling for the area, then this condition for a local area review is met. As an example, if the staging ceiling for an area is 2,000 households, and if the sum of the housing completions, all approved subdivisions and the proposed subdivision is greater than 1,900, then this condition is met.

3. Findings for Inadequate Facilities

The Planning Board staff report will present findings for each of the categories identified below and give a recommendation relating to the adequacy of the transportation facilities. The Planning Board will use these findings, as well as comments and

recommendation from the County Executive, to make its overall findings as to adequacy of public facilities for the proposed development.

- A. Transportation Solutions: If the developer's local area transportation review identifies a local area problem, staff will notify the developer and County Executive of the problem so that they can work together to develop a solution to resolve the problem. Once the developer and the County Executive have identified the degree to which there are remedial transportation solutions to obtain adequate local transportation capacity, these solutions will be brought to the attention of Planning Board staff. These solutions could include additional traffic engineering or operating changes beyond those currently programmed, or nonprogrammed transit or ridesharing activities which would make the overall transportation system adequate.
- B. Degree of Local Congestion: Staff will identify the degree of congestion forecasted for both A.M. and P.M. peak hours. Staff will present findings of the degree to which the forecasted traffic exceeds the maximum capacity of the nearby road system. The mid-point of Level of Service E is presumed the condition under which the transportation facilities as a total system are operating at maximum capacity. Critical Lane Volumes higher than the mid-point of Level of Service E are deemed to reduce the overall efficiency of the road network. Because the experience of congestion is felt by road users and adjacent land uses before this level is reached, a judgment must be made in each case regarding the degree of detrimental impact that can be tolerated. The degree of local congestion will be considered to be more severe if both the A.M. and P.M. peak-hour traffic conditions are beyond the mid-point of Level of Service E.

If an applicant agrees to construct a roadway project or provide a transit program which would result in the operating conditions (as measured by critical lane volume) being better than the conditions that would occur without the applicants project, then local congestion will be considered less severe even though the calculated level of service does not meet the standard of acceptability.

- C. Unavoidable Congestion: Staff will identify the degree to which there are alternate routes or paths to serve the traffic associated with the proposed development. If there are no appropriate alternate routes for that traffic to use to avoid the congestion, then it must be assumed that traffic from the proposed development will increase the local area congestion. It is not appropriate to anticipate that the traffic associated

with the development would use local streets unless those streets have been functionally classified as being suitable for handling that generated traffic.

- D. Transit Unavailability: Staff will identify the degree to which transit or ridesharing activities are not available to serve the proposed development. If it is physically or fiscally ineffective for the public agencies to provide transit or ridesharing services, then the local congestion, likely to be caused by the proposed development, cannot be significantly absorbed through the alternative mode of travel. If there is sufficient potential for serving the proposed development with transit or ridesharing services, then it is possible that a transit alternative could be developed for modifying the demand contributing to the severe congestion.
- E. Project Related Traffic: Staff will identify the degree to which the congestion problem is directly attributable to the proposed development. Traffic from three sources will be measured: (1) existing traffic, (2) traffic which would be generated by the sum total of all outstanding but unbuilt approved subdivisions, and (3) traffic which would be generated by the proposed development itself. The more that traffic from the proposed development contributes to the congestion problem, the greater the severity of the local impact.

4. Method and Preparation of Local Area Transportation Review

The following general criteria and analytical techniques are to be used by applicants in submitting information and data to demonstrate the expected impact on public roadways by the residents or employees of the proposed subdivision. In addition to the consideration of existing traffic associated with present development, the applicant shall include in the analysis potential traffic which will be generated by his subdivision and other "nearby" recorded lots and approved subdivisions to be included in the analysis. The local area review analysis for the proposed preliminary plan under consideration must include in background traffic all preliminary plans approved by the Planning Board more than two weeks prior to the submission of a preliminary plan application or traffic study, whichever is later. The traffic study should be submitted to the Development Review Division along with the preliminary plan application. Information and data on other "nearby" recorded lots and approved subdivisions will be supplied to the applicant upon request.

If more than six months elapse between the date the traffic study is submitted and the first date for which the plan is scheduled for review by the Planning Board, the applicant must update the traffic study to include any additional subdivisions approved since the original submission. If a delay of more than

six months occurs because there is no available staging ceiling, the applicant has 30 days after new staging ceiling capacity becomes available to submit an updated traffic study. If an updated study is not submitted within 30 days, the plan loses its place in line and its new application date will be the date the updated traffic study is eventually submitted.

In situations where there is available staging ceiling capacity and more than six months elapse between the date of the Subdivision Review Committee (SRC) meeting and the first date the plan is scheduled for a Planning Board meeting, the application will lose its place in line and the new application date will become the date that an updated traffic study is submitted. If the applicant believes that the six months have elapsed because of governmental delays beyond his control, he may request and, the Planning Board may approve, an extension of the six month period.

At a meeting with transportation staff, the following aspects of the traffic impact analysis will also be agreed upon:

- 1) which intersections are to be included in the traffic impact analysis;
- 2) adequacy of available turning movement counts and need for additional data;
- 3) period of analysis (A.M. or P.M. or both);
- 4) trip generation rates, especially for commercial development;
- 5) directional distribution of site-generated and platted traffic;
- 6) mode split assumptions;
- 7) programmed projects to be considered in the analysis, along with techniques for estimating traffic diversion to major new programmed facilities;
- 8) link adequacy and trends in traffic growth; and
- 9) feasible range of traffic engineering improvements associated with implementing the development.

5. Methods for Assigning Values to Key Factors

- A. Capital Improvements Program Definition: If the applicant finds it necessary or appropriate in the preparation of the traffic study to incorporate programmed transportation improvement then they must rely upon the Approved Road Program (ARP) to identify which roads are defined as being programmed. The ARP is a list published at least twice a year by the County Executive that shows all roadway improvements that are contained in the CIP or CTP and indicates which projects may be used in conducting a Local Area Transportation Review. For a project to qualify to be used in a Local Area Transportation Review, the project must meet two criteria: (1) 100 percent of the construction funds need to be already appropriated, and (2) the start of construc-

tion needs to be shown in the ARP as being within a two year (24 months) time period.

- B. Trip Generation: Trip generation rates are the number of vehicle trips to and from a development per unit of development activity. They are used in a simple form in local area transportation review in order to assess the impact of a particular development on the nearby transportation network. The generation rates are also used, with appropriate modifications for scale effects and trip purpose, within the transportation model of staging ceiling analysis. When so used, they are based on type of trip such as work trips or shopping trips and are set as daily rates.

For Local Area Traffic Review, peak hour trip rates from the Institute of Transportation Engineers are generally used. Typical ranges of rates for residential development and selected non-residential trip rates are listed below. The applicant has the opportunity to use the rates from a range. This range of rates reflects items such as transit availability, the size of the development relative to the particular land use, and the location. These and other rates used in Local Area Review are currently under study for possible revisions. Lowering trip generation rates would mean a lesser assumed impact for a given type of development.

<u>Land Use Category</u>	<u>Peak Hour Trip Generation Rates</u>	
High Rise Apartments	.5 to	.7 trips/housing unit
Townhouses	.6 to	.8 trips/housing unit
Garden Apartments	.6 to	.8 trips/housing unit
Single-Family	.8 to	1.0 trips/housing unit
General Office	2.00 to	2.82 trips/1000 square feet
Shopping Centers	0.61 to	14.42 trips/1000 square feet

- C. Peak Hour: The applicants shall use the peak one-hour period which occurs during either the 7-9 A.M. or 4-6 P.M. periods or both, as agreed to by the staff and applicant.
- D. Trip Distribution: The directional distribution of the generated trips entering and leaving the proposed subdivision via all access points must be justified by the relative locations of other traffic generators (i.e., employment centers, commercial centers, regional

or area shopping centers, transportation terminals, or the trip table information provided by staff). These same factors or other factors provided by the Subdivision Review Committee shall be applied to the development under study as well as the other "nearby" subdivision plans in their analyses.

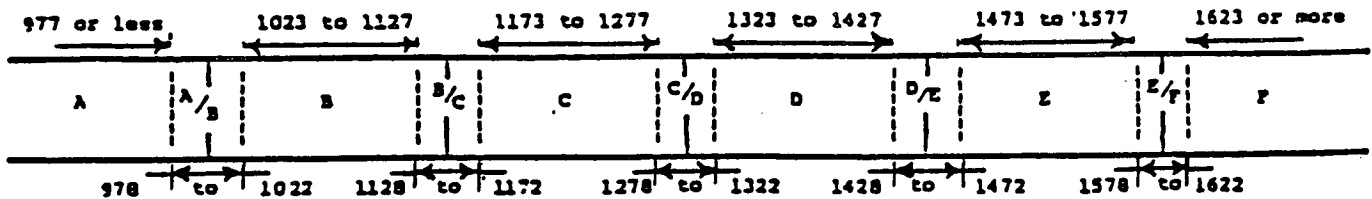
- E. Directional Split: Trips generated by residential uses will be assumed to have 60-70 percent leaving and 30-40 percent entering the proposed subdivision during the morning peak and 60-70 percent entering and 30-40 percent leaving the proposed subdivision in the evening peak. The split for traffic associated with other land uses is to be derived from ITE published information or other accepted studies, as determined by the transportation planning staff and the applicant.
- F. Trip Assignment: The distribution factors shall be applied to the generated trips and the resulting traffic volumes assigned to the road network providing access to the proposed subdivision plus existing and "nearby" future traffic to determine the impact on the adequacy of the transportation facilities. The assignment is to be extended to the nearest major intersection, or intersections, as determined by the Subdivision Review Committee and can include an evaluation of the impact of generated traffic on existing links.
- G. Critical Lane Analysis: At the identified major intersection, or each such intersection, the existing and generated traffic is to be related to the adequacy of the intersection by using the "Critical Lane Volume" technique (see section J) which shall be updated to maintain consistency with the Highway Capacity Manual revisions. Link volume analysis shall also be related to Highway Capacity Manual standards. The analysis should be carried out for both the A.M. and the P.M. peaks and should use traffic data for non-holiday weekdays. If so desired, alternate capacity and level of service analysis techniques can be used to develop supplemental information.
- H. Traffic Data:
 - 1. Traffic volume data is available from either the Maryland Department of Transportation or the Montgomery County Department of Transportation.
 - 2. Data should be adjusted to the current year or new counts should be made by the applicant if, in the opinion of staff, traffic volumes have increased due to some change in the traffic pattern, such as the completion of a development project after the count was made. Counts older than six months must be made current by adding estimated new residen-

tial and commercial construction completed since the date the count was made.

3. If turning movement data is older than three years, or if there are locations for which data is non-existent, data must be acquired by the applicants using their own resources. This is in accordance with the ordinance and part of the applicant's submission of sufficient information and data, consistent with the decisions reached by the Subdivision Review Committee and Transportation Planning Staff.
 4. Intersection traffic counts conducted by the applicant must be manual turning movement counts covering the periods of 7-9 A.M. and 4-6 P.M. so as to allow selection of the peak hour within the nearest thirty minutes (e.g., 4:00-5:00, 4:30-5:30, or 5:00-6:00). Inclusion of all 7-9 A.M. and 4-5 P.M. turning movement data is required to be submitted as part of the applicant's traffic impact analysis.
- I. Adequate Accommodation of Traffic: The ability of a highway system to carry traffic is expressed in terms of "Level of Service" at the critical locations (usually intersection). "Level of Service" is defined alphabetically as follows:
- "A" Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles..
 - "B" Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
 - "C" Conditions of stable flow, delays are low to moderate, full use of peak direction signal phase(s) is experienced.
 - "D" Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
 - "E" Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exists for extended duration throughout the peak period.
 - "F" Conditions are jammed, full utilization of the intersection approach is prevented due to back-ups from locations downstream.

The following chart indicates the "Critical Lane Volume" ranges to be used in determining "Level of Service" for an intersection. Service level volumes for roadway sections and ramps are described in sections eight through ten of the Highway Capacity Manual. ("The Critical Lane Volume" technique is described in section J.)

Intersection Levels of Service by Critical Lane Volume Ranges



J. "Critical Lane Volume" Technique: A technical description of the "critical lane volume" technique is given in the January 1971 issue of Traffic Engineering. The following step-by-step procedure should be sufficiently descriptive to enable the applicant to utilize the technique at simple two-phase or unsignalized intersections.

The peak hour approaching traffic volume and turning movements for the intersection being analyzed will be determined in the traffic generation and trip distribution phase of the analysis. At unsignalized intersections, a two-phase operation should be assumed.

The following is a step-by-step description of how to determine the Level of Service (LOS) for an intersection.

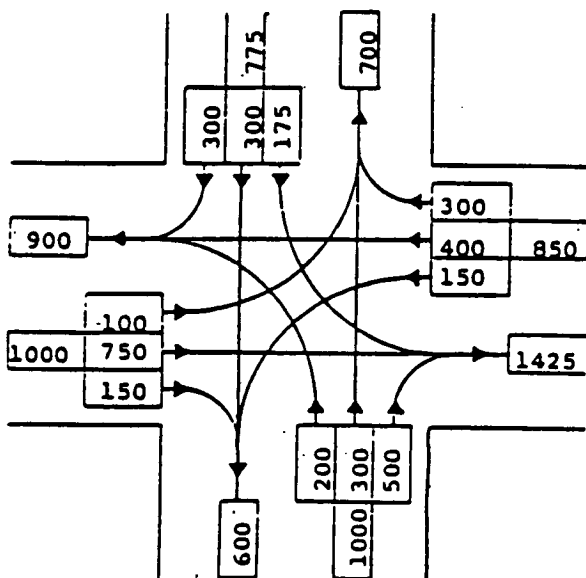
- Step 1. Note the number of approach lanes from each direction.
- Step 1. Subtract from the total approach volume any right turn volume that operates continuously throughout the signal cycle, (i.e., a free right turn by-pass).
- Step 3. Determine the maximum volume per lane from each approach using the following table.
(Note: Do not count lanes established for exclusive use such as left turn storage lanes - the lane use factor for exclusive use lanes is 1.00).

Number of Approach Lanes	Lane Use Factor
1	1.00
2	0.55
3	0.40
4	0.30

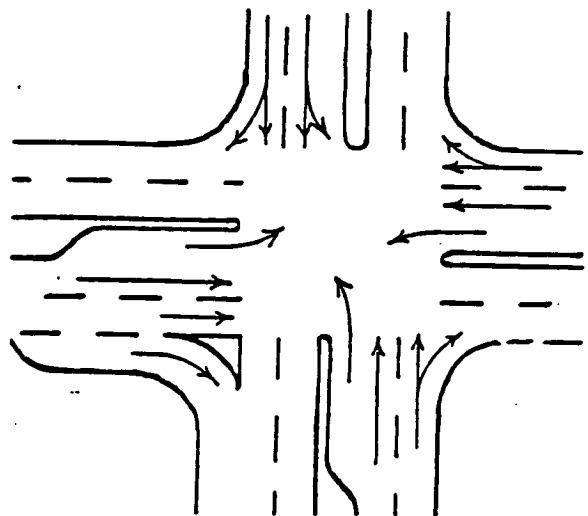
- Step 4 Select the maximum volume per lane in one direction (e.g., northbound) and add it to the opposing (e.g., southbound) left turn volume.
- Step 5 Select the maximum volume per lane operating in the opposite direction of the approach selected in Step 4.
- Step 6. The maximum total of Step 4 or Step 5 will be the "critical" volume for phase one (e.g., north-south).
- Step 7. Repeat Steps 4 through 6 for lanes operating in phase two (e.g., east-west).
- Step 8. Sum the "critical" volumes for each phase.
- Step 9. Compare the resultant "Critical Lane Volume" for the intersection with the range table on page A-77.

"Critical Lane Volume" Technique Example

TURNING VOLUMES



INTERSECTION GEOMETRICS



<u>From</u>	<u>Approach Volume</u>	<u>Lane Use Factor</u>	<u>Critical Approach Volume</u>	<u>Opposing Lefts</u>	<u>Critical Lane Volume Per Approach</u>
N	775 ⁽¹⁾	0.55	426	+ 200	= 626
S	800 ⁽²⁾	0.55	440	+ 175	= 615
S OR	500	1.00	500	+ 175	= 675*
E	700 ⁽³⁾	0.55	385	+ 100	= 485
W	750 ⁽⁴⁾	0.55	412	+ 150	= 562*

* "Critical Lane Volume" = 675 + 562 = 1,237 vph.
1,237 represents Service Level C (from table on page A-77).

- (1) Approach volume sum of throughs, rights and lefts in two lanes.
- (2) For a heavy right turn, must evaluate worst of rights in one lane or throughs and rights in two lanes.
- (3) Approach volume sum of throughs and rights in two lanes.
- (4) Approach volume is through only because of free right and separate left.

K. Items that must be submitted as a part of the local area transportation review: In an effort to standardize what information is submitted in a local area transportation review, the following must be submitted before the preliminary plan application is considered complete when this review is required.

1. A site or area map showing existing roads in the area.
2. The location on the site map of "programmed" highway improvements, if any, that are in the County's Capital Improvements Program (CIP) or the State's Consolidated Transportation Program (CTP), which would affect traffic at the critical intersection(s) to be studied provided that they are in the County's most recently published Approved Road Program (ARP).
3. Existing A.M. and P.M. peak traffic count summaries for all "nearby" critical intersections.

4. "Nearby" approved subdivisions that would affect traffic at the critical intersection(s), with their location shown on the area map.
5. A table giving A.M. and P.M. peak hour traffic generated by all "nearby" approved but unbuilt subdivisions showing the generation rate for each type of subdivision.
6. A.M. and P.M. peak hour traffic generated by the proposed subdivision proportioned to the traffic entering and leaving the site.
7. Trip distribution pattern, in percent, for the "nearby" recorded subdivisions during the A.M. and P.M. peak hour, with the pattern being shown on an area map.
8. Trip distribution pattern, in percent, for the proposed subdivision during the A.M. and P.M. peak hours, with the pattern being shown on an area map.
9. Maps which show separately and in combination.
 - (a) Existing A.M. and P.M. traffic volumes assigned to the affected highway system.
 - (b) Projected A.M. and P.M. traffic volumes assigned to the affected highway system for all "nearby" approved subdivisions.
 - (c) Projected A.M. and P.M. traffic volumes assigned to the affected highway system for the proposed subdivision.
10. Any study performed to help determine how to assign recorded or proposed development traffic, such as a license plate study or special turning movement counts, should also be supplied.
11. Copies of all critical lane analyses, showing calculations for each approach, should be included.
12. A listing of all transportation improvements, if any, that the developer agrees to provide.

Appendix 8:

**DEFINITIONS
AND KEY
VARIABLES**

DEFINITIONS AND ASSIGNED VALUES FOR KEY VARIABLE ASSUMPTIONS

Determining the impact of future development requires a number of assumptions to be made. The assumptions made about certain key variables constitute important points of leverage within the various statistical and computerized modeling processes. Alternative assumptions for these variables would result in a different overall assessment of the impacts of future development. While the assumptions used herein are by all evidence both reasonable and appropriate, there is some room for variation. All of the numbers used have ranges of fluctuation around them which are experienced in the real world. Any point within the range of real experience can be taken depending upon the risk one is willing to accept that the simulation model will no longer reflect reality as well.

The following is a simple expression of those key assumptions: what is being used; how the assumption is used in the modeling process; and the impacts of changing those assumptions in terms of the modeling process.

1. Definitions

ADEQUATE PUBLIC FACILITY ORDINANCE (APF): An element of the Subdivision Ordinance which requires the Planning Board to make a finding that existing or programmed public facilities are adequate before they can approve a preliminary plan of subdivision.

APPROVED ROAD PROGRAM (ARP): The County Executive shall publish periodically an Approved Road Program which shall list all roads programmed in the current adopted CIP and the Maryland CTP for which: (A) in the case of the CIP, 100% of the funds have been appropriated for construction costs; and (B) the County Executive has determined that construction will begin within two years of the effective date of the Approved Road Program. Roads required under Section 302 of the charter to be authorized by law are not considered programmed until they are finally approved in accordance with Seciton 20-1 of the Code. The ARP constitutes the list of roads which can be counted upon in conducting a Local Area Transportation Review.

AVERAGE DAILY TRAFFIC (ADT): The number of vehicles traveling on a segment of roadway during the 24 hours of an average weekday.

CAPITAL IMPROVEMENT PROGRAM (CIP): A document prepared each year by the Montgomery County Executive and adopted by the County Council which contains a six-year program for capital expenditures to expand and renovate Montgomery County's public facilities.

CEILING: See Staging Ceiling.

CONSOLIDATED TRANSPORTATION PROGRAM (CTP): The transportation capital improvements program annually adopted and administered by the State of Maryland. For the purposes of conducting the Annual

Growth Policy analysis, the CTP will be considered as being adopted on the last day each year of the session of the Legislature, usually during the second week in April. In the event there is the possibility of a veto of the Legislature's actions by the Governor then the appropriate date of adoption should be the last day that the Governor has to exercise his veto. In the event that the Legislature adds or deletes projects during the legislative session from the annual CTP document published by the MdDOT, usually in January, then official correspondence from the MdDOT acknowledging the intended changes to the CTP constitutes the official amendment. However, in order to use such changes in the Policy Area Review for the Staging Ceilings the correspondence needs to indicate that an added project would have 100% of its construction expenditures scheduled by the fourth fiscal year of that CTP. If appropriate, that correspondence can also be the basis of amending the Approved Roads Program.

DEVELOPMENT PIPELINE: This is the amount of future construction which will counted against threshold capacity. It shall consist of: (1) all building completions since January 1, 1986; (2) the unbuilt portion of all approved subdivisions. This is comprised of unbuilt sewer authorizations plus approved preliminary plans without sewer authorizations.

Square Foot Per Job

Square foot per job is produced by dividing the size of the structure in which people work by the number of people who work there. It is used in determining the impact of new buildings in terms of employment. This affects both how the pipeline of development and proposed preliminary plans are measured. Currently, the following rates are used:

Office	250 square foot per employee except in the down county areas of Bethesda, Silver Spring, Kensington/Wheaton, and North Bethesda, where 200 square feet per employee is used.
Retail	400 square feet per employee.
Industrial/ Warehouse	450 square feet per employee.
Other (i.e., hotels, institutions)	500 square feet per employee.

Assuming a greater number of square footage per employee would assume a lesser transportation impact for a given square footage of building. It would permit more (non-residential) development to be approved within the staging ceiling.

JOBS IN BUILDING: The total estimated number of workers which can be accommodated in structures. It includes existing workers in addition to workers who could be accommodated in vacant or yet to be built structures. It does not include construction workers or self employed people working out of residential areas.

LEVEL OF SERVICE (LOS): A description of the quality of performance of a facility given the demands being placed upon that facility; mostly used in this report in terms of transportation facilities which reference an A to F quality scale. This is nationally accepted scale used to describe the quality of roadway service.

LOCAL AREA REVIEW (LAR): The process used to determine if the proposed development will produce excessive local detrimental impact beyond the capacity of existing and programmed public facilities. (See detailed guidelines attached.)

PIPELINE: See Development Pipeline.

PROGRAMMED FACILITY: A capital facility project which is contained within the approved County Capital Improvements Program or the State Consolidated Transportation Program, such that 100 percent of the funds necessary for construction or operation are scheduled for expenditure within the first four years of the CIP or CTP. Where such road project either crosses several policy areas or will be built over a period of time in identifiable segments, only those sections identified by the Planning Board will be deemed "programmed" for the purpose of conditional approval.

RECORD PLAT: A preliminary plan of subdivision which has been approved for recordation by the Montgomery County Planning Board or is already a recorded plat in the official Montgomery County land records.

SCHOOL CAPACITY

A) Children Per Household

Children per household is the average number of children expected to be generating from the residential development. It is used to estimate future enrollment when approved preliminary plans exceed the School Board's 1990 expected forecast. The rates used were determined from the 1984 Census Update Survey for people moving into the County. The rates are as follows:

CHILDREN YIELD FACTORS BY SCHOOL ADMINISTRATIVE AREA
(Number of Children per Household by Age or Grade)

	Movers				
	<u>Age</u> <u>0 to 4</u>	<u>Grade</u> <u>K to 6</u>	<u>Grade</u> <u>7 to 8</u>	<u>Grade</u> <u>9 to 12</u>	<u>Age</u> <u>0 to 17</u>
AREA I					
Single Family	0.3388	0.3791	0.0968	0.1753	0.9900
Multi-Family	0.1343	0.1141	0.0320	0.0498	0.3302
All Housing	0.2311	0.2396	0.0627	0.1092	0.6427
AREA II					
Single Family	0.3050	0.3338	0.1154	0.2333	0.9875
Multi-Family	0.1013	0.0585	0.0115	0.0474	0.2187
All Housing	0.2122	0.2083	0.0681	0.1486	0.6372
AREA III					
Single Family	0.4367	0.3612	0.0939	0.1790	1.0709
Multi-Family	0.1792	0.1243	0.0291	0.0490	0.3815
All Housing	0.3437	0.2756	0.0705	0.1320	0.8219

Source: Montgomery County Planning Department, 1984 Census Update.

Assuming higher children per household rates would mean more schools would be needed to provide for them.

B) School Capacity

School capacity is determined by multiplying the number of teaching stations by the appropriate student-teacher ratio. For the purposes of determining capacity the School Board recently adopted a student teacher ratio of 25 students to 1 teacher. Because special education programs use student-teacher ratios much lower than the estimated 25:1, the capacity needs for those programs are subtracted initially from the available classrooms in calculating school capacity. Kindergarten programs are calculated with student-teacher ratios of 44:1 for half day Kindergarten and 22:1 for full day Kindergarten. Student capacity for secondary schools (100%) has been defined as 90% of state rated capacity.

In addition to student capacity derived on this basis, an additional 10 percent is added on some tabulations. Where 110 percent of school capacity is shown, it is meant to reflect portable classrooms or other temporary measures the School Board could undertake to increase capacity. The greater the assumed school capacity, the more residential development will be accommodated without the need to resort to additional capital facilities.

STAGING POLICY AREA: A geographic subarea of the County, delineated by the Planning Board, for the purpose of staging analysis and the establishment of staging ceiling capacities as appropriate. (See Map 1, page A-60.)

STAGING CEILING: A total amount of development expressed in terms of housing units and jobs that has been determined by the Planning Board to be balanced appropriately, on the basis of an areawide average, with the existing and programmed facilities for the area.

Housing units may be single-family detached, single-family attached, garden apartments, and high rises. Each housing unit is counted as one unit.

Housing units may be single-family detached, single-family attached, garden apartments, and high rises. Each housing unit is counted as one unit.

TRANSPORTATION CAPACITY - POLICY AREAS

A) Average Level of Service

In the determination of an acceptable level of service for each policy area, a measure of the average level of service is used. This is a weighted index of the traffic congestion level for a policy area. The index is calculated by estimating the average traffic congestion level experience on each link of roadway in each policy area, weighting it by the vehicle-miles of travel on each link, and then calculating the weighted average.

The policy standards for average level of service which are set are critical in determining the staging ceilings. Changing the definition of what is an acceptable level of service will change the assessment of how much development will be permitted. The standards used herein vary from average LOS C to LOS D/E. The lower an average standard which is used, the more amount of development which would be approved.

B) Roadway Capacity

The hourly roadway capacity is a key variable in the transportation model which is used to evaluate alternative staging ceilings. The hourly roadway capacities used in the current transportation modeling process vary by route type, location (urban/suburban/rural), and roadway geometry. It is not possible to present here all of the individual capacities that have been used for different roadway types, geometry, and locations. As an example, the following are some of the capacities used in the model:

<u>Route Type</u>	<u>Service Volume at Level of Service "C" (Vehicles Per Hour Per Lane)</u>
Expressways	1,296 to 936
Primary Arterials	744 to 660
Secondary Arterials	660 to 440
Minor Arterials & Collectors	432 to 324

The higher the values of the capacities, the more the amount of development which would be approved.

C) Peak Hour Factors

Peak hour factors are key variables in the transportation model used to evaluate alternative staging ceilings. These factors are a means to relate the hourly roadway capacities to the estimates of average daily traffic volumes simulated by the transportation model. Use of this factor enables the daily volumes to be divided by the hourly capacities to produce the peak hour level of service estimate for each link. Those link estimates are then averaged to produce the average LOS estimate for each policy area. These peak hour factors, like the capacities, vary by route type and area. The nominal values for these factors vary from 0.12 to 0.14 (i.e., peak hour traffic - 12-14 percent of average daily traffic), and are representative of the typical peaking conditions of the 1970's. Some adjustments have been made to the current evaluation of model results to account for probable lower current and future values to represent the spreading of the peak phenomenon which probably is occurring as a result of increased traffic congestion since this data was collected. The lower the value of peak hour factor which is used, the more the amount of development which can be approved.

D) Other Variables in the Transportation Model

There are a number of other variables in the TRIMS transportation model used by Planning staff that affect the evaluation of staging ceiling capacity. The values of most of these are derived from the Washington Metropolitan Council of Governments (COG) calibration of the COG-developed TRIMS model system. Numerous factors enter into the model system's trip generation, trip distribution, auto occupancy, and transit mode choice models. Staff has worked to maintain the Commission model system in a fashion as consistent as possible with the continually updated COG TRIMS model. A new traffic model called EMME-2 is currently being installed and should be available to replace the older TRIMS model during the spring of 1987.

One other key variable affecting the transportation analysis is in the land use assumed for the other jurisdictions in the Washington Metropolitan Region for the purposes of assigning traffic through Montgomery County to and from these destinations. In general, the COG Round 3 Intermediate Cooperative Forecast for 1990 has been used for this purpose.

E) De Minimis Development

De Minimis development is that which will have minor traffic impacts. It is a policy to avoid over regulating low impact development. This policy defines the development which receives special treatment within these guidelines. Development which would produce fewer than 10 peak hour trips may receive approval of up to 5 peak hour trips within areas exceeding the staging ceiling. The higher these types of limits are set, the more development that can be approved.

TRANSPORTATION CAPACITY - LOCAL AREA REVIEW

A) Trip Generation

Trip generation rates are the number of vehicle trips to and from a development per unit of development activity. They are used in a simple form in local area transportation review in order to assess the impact of a particular development on the nearby transportation network. The generation rates are also used, with appropriate modifications for scale effects and trip purpose, within the transportation model for staging ceiling analysis. When so used, they are based on type of trip such as work trips or shopping trips and are set as daily rates.

For Local Area Traffic Review, peak hour trip rates from the Institute of Transportation Engineers are generally used. Typical ranges of rates for residential development and selected non-residential trip rates are listed below. The applicant has the opportunity to use the rates from a range. This range of rates reflects items such as transit availability, the size of the development relative to the particular land use and the location. These and other rates used in Local Area Review are currently under study for possible revisions. Lowering trip generation rates would mean a lesser assumed impact for a given type of development.

<u>Land Use Category</u>	<u>Peak Hour Trip Generation Rates</u>	
High Rise Apartments	.5 to	.7 trips/housing unit
Townhouses	.6 to	.8 trips/housing unit
Garden Apartments	.6 to	.8 trips/housing unit
Single-Family	.8 to	1.0 trips/housing unit
General Office	2.00 to	2.82 trips/1000 square feet
Shopping Centers	0.61 to	14.42 trips/1000 square feet

B) Acceptable Level of Service (LOS)

Of the variables discussed in the Local Area Traffic Review (LATR) Guideline, a change in the acceptable LOS would have the largest effect on whether a preliminary plan was determined to be acceptable with regard to APFO. In the policy areas that have established staging ceilings, a LOS of mid-point E is being used as the lowest acceptable LOS for LATR. The mid-point LOS E is presumed to be the condition under which the transportation facilities are operating at maximum capacity. This relatively low LOS, used in LATR for specific intersections, is acceptable because of the check related to the staging ceiling, that says on the average the level of service over the area is better than this lower level. If a better local LOS standard is used, less development would be approved.

In the more rural areas of the County where staging ceilings are not established, an intersection is presumed to be operating acceptably under LATR if the LOS is D/E or better. This better LOS is used in these areas since staging ceilings have not been established in these areas. The better the LOS deemed acceptable, the less the amount of development which will pass Local Area Review.

C) Peak Hour Traffic Counts

Peak hour traffic counts for any location vary from day to day, week to week and for seasons of the year. In general, traffic counts made during the summer month should not be used since traffic during this time of year is lower than normal. Traffic counts taken on holidays or the day before or after holidays should not be used due to their non-typical characteristics. Counts that are more than six months old should be adjusted to reflect development that has been completed and occupied since the count was made. Traffic counts older than three years should not be used because of potential changes in traffic patterns and growth in traffic. The Planning staff has the right to require new counts to be made if there is reason to believe that a count is flawed.

Appendix 9:

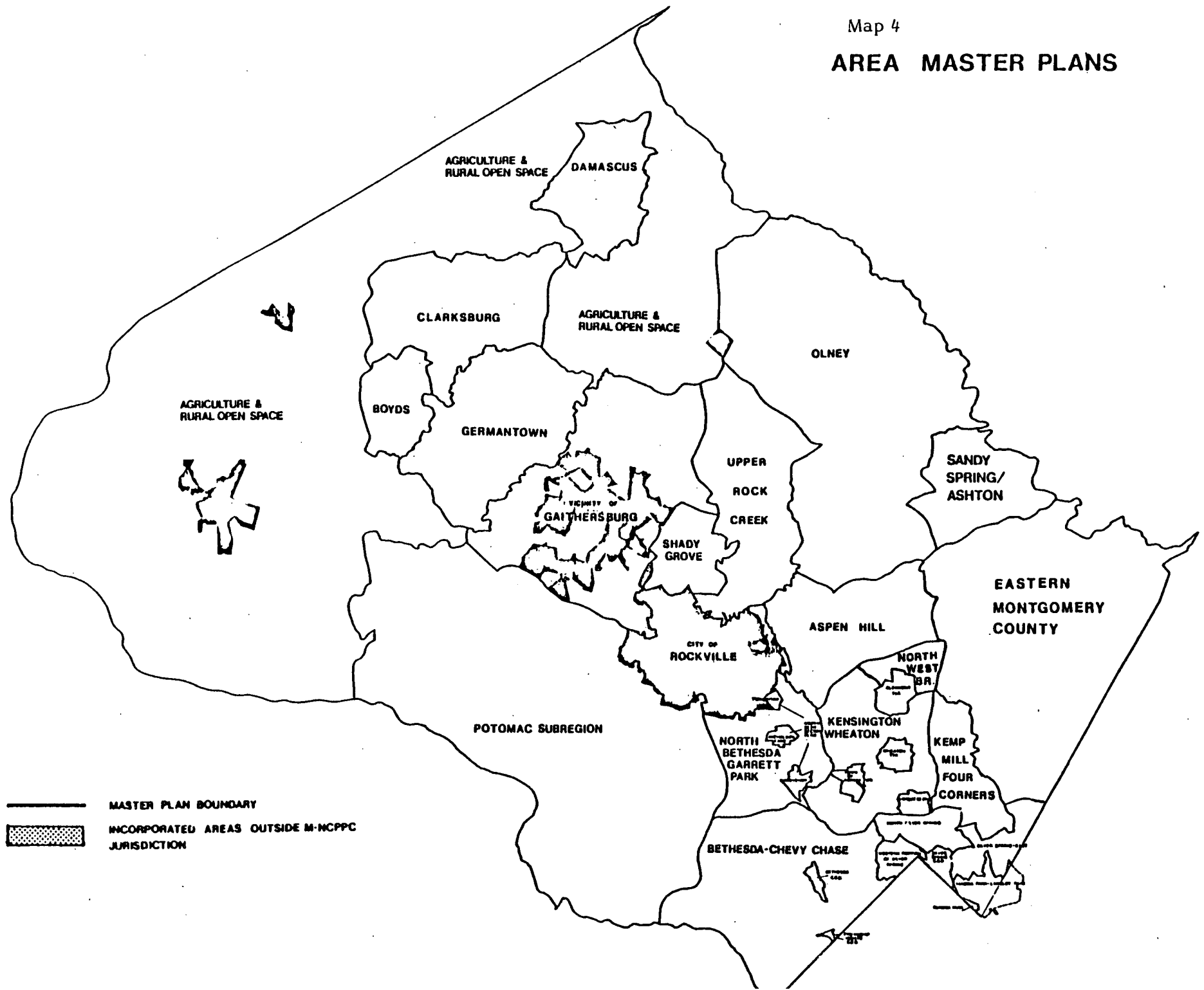
**MASTER
PLAN
INDEX AND
BOUNDARIES**

All land use planning in Montgomery County is based upon the County's General Plan. The General Plan "On Wedges and Corridors" was adopted in 1964 and updated in 1969. The General Plan has been refined by the adoption of local area master plans, sector plans, subregional plans and functional master plans.

Master Plans	Initial Date of Adoption		Date of Last Adopted Amendments	
Aspen Hill Planning Area	December	1970	October	1979
Bethesda-Chevy Chase Planning Area	October	1970	November	1981
Boyd's	February	1985		
Clarksburg and Vicinity	September	1968		
Damascus	June	1982	July	1985
Eastern Montgomery County	November	1981		
Gaithersburg & Vicinity	January	1985		
Germantown	January	1974	November	1982
Kemp Mill-Four Corners & Vicinity	May	1967		
Kensington/Wheaton	September	1959	July	1982
North Bethesda/Garrett Park Planning Area	December	1970		
Olney	June	1980		
Potomac Subregion	May	1980	September	1982
Poolesville Vicinity	September	1980		
Rock Creek	October	1968	March	1980
Sandy Spring/Ashton Special Study	November	1980	February	1981
Silver Spring East	March	1977		
Silver Spring West	April	1972	August	1976
Takoma Park	May	1982		
Upper Northwest Branch	April	1961	November	1981
Upper Rock Creek	November	1967	July	1985
Sector Plans				
Bethesda CBD	June	1976	November	1982
Capitol View	July	1982		
Forest Glen Transit Impact Area & Vicinity	July	1978		
Friendship Heights CBD	June	1974		
Glenmont Transit Impact Area & Vicinity	July	1978		
Kensington Town & Vicinity	September	1978		
North Bethesda, Grosvenor, Nicholson Lane	May	1978	February	1981
Shady Grove Transit Station Area	April	1977		
Silver Spring	July	1975	June	1978
Silver Spring North	July	1978		
Takoma Park Transit Impact Area	October	1974		
Westbard	September	1982		
Wheaton CBD & Vicinity	July	1978	July	1982
Functional Plans				
Agricultural Preservation	October	1980		
Bikeways	June	1978		
Historic Preservation	September	1979		
Highways	June	1955		
Rock Creek Watershed	May	1980		
Seneca Creek and Muddy Branch Watersheds	February	1977		

AREA MASTER PLANS

A-114



CREDITS

ABSTRACT

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ABSTRACT: Montgomery County Council Bill No. 11-86 established the process by which the Council will provide guidance for the management of growth. In accordance with this law, the Montgomery County Planning Board has prepared this draft of the first Annual Growth Policy (AGP) for transmission to the County Executive for revision before it is submitted by the Executive to the County Council. The report includes general policy guidelines and information for growth management of the Adequate Public Facilities Ordinance by the Montgomery County Planning Board.

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THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

The Maryland-National Capital Park and Planning Commission is a bi-county agency created by the General Assembly of Maryland in 1927. The Commission's geographic authority extends to the great majority of Montgomery and Prince George's Counties; the Maryland-Washington Regional District (M-NCPPC planning jurisdiction) comprises 1,001 square miles, while the Metropolitan District (parks) comprises 919 square miles, in the two Counties.

The Commission has three major functions:

- (1) The preparation, adoption, and from, time to time, amendment or extension of the General Plan for the physical development of the Maryland-Washington Regional District;
- (2) The acquisition, development, operation, and maintenance of a public park system; and
- (3) In Prince George's County only, the operation of the entire County public recreation program.

The Commission operates in each county through a Planning Board appointed by and responsible to the county government. All local plans, recommendations on zoning amendments, administration of subdivision regulations, and general administration of parks are responsibilities of the Planning Boards.

